University of Alberta

The Relationship between Social Withdrawal, Friendship, and Socioemotional Adjustment in Children

by

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ABSTRACT

The present study examined the relationship between social withdrawal, peer acceptance, friendship, and socioemotional adjustment, as well as the differences in friendship and socioemotional adjustment between socially withdrawn children and their "average" peers. A total of 158 boys and girls in grades four, five, and six from regular classrooms within schools in and around a mid-sized Western Canadian city participated in this study, ranging in age from 8 years 11 months to 13 years 3 months. Children completed peer assessments of social status and behaviour, friendship nominations, and self-reports of socioemotional adjustment, friendship quality, and friendship satisfaction.

While preliminary analyses failed to support the passive withdrawal and active isolation subgroups of social withdrawal, results from the hierarchical regression and path analyses revealed that social withdrawal significantly predicted social self-perceptions; friendship satisfaction significantly predicted feelings of peer network loneliness; and both friendship quality and friendship satisfaction significantly predicted dyadic loneliness. While peer acceptance did not directly influence any of the adjustment variables, it served to partially mediate the relationship between social withdrawal and friendship reciprocity. A mediating effect was observed for the friendship variables in the relationship between social behaviour/status indices and the two dimensions of loneliness.

Results from further analyses revealed that socially withdrawn children reported lower friendship quality and were less likely to have a reciprocated best friendship than their "average" peers. However, group and gender differences in socioemotional adjustment and friendship satisfaction were nonsignificant. While socially withdrawn children with a reciprocated best friendship reported higher levels of friendship quality, this reciprocity did not significantly influence levels of friendship satisfaction or socioemotional adjustment. An examination of the identity of children's friends revealed that while they did not seek friends of behavioural similarity, children with withdrawn profiles selected best friends with relatively poor socioemotional adjustment.

The findings from this study are encouraging and establish preliminary support for the importance of considering both peer group and friendship experiences simultaneously when examining the relationship between social withdrawal and adjustment. Additionally, this examination of the dyadic friendships of socially withdrawn children enhances our understanding of their difficulties and may help guide intervention efforts.

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CHAPTER ONE: INTRODUCTION

Research on peer relations over the last decade has focused on the diverse behavioural correlates of peer rejection, tempering the view that aggression is the primary variable associated with peer rejection and increasing the attention towards social withdrawal (Ladd, 1999). Furthermore, this research has also paved the way for significant insights into the association between social behaviour, peer status, and friendship, and augmented the conceptual distinction between peer acceptance and friendship (Ladd, 1999).

Research within the peer relations literature derives its conceptual foundations from classical theorists such as Piaget, Mead, and Sullivan, who emphasized the importance of peer relations in normal social and emotional development (Rubin & Stewart, 1996; Rubin, Stewart & Coplan, 1995a).

> Experiences with peers constitute an important developmental context for children. Within these contexts, children acquire a wide range of skills, attitudes, and experiences that influence their adaptation across the lifespan. Accordingly, peers are powerful socialization 'agents' contributing beyond the influence of family, school, and neighborhood to children's social, emotional, and cognitive well-being and adjustment. (Rubin, Bukowski, & Parker, 1998, p. 620).

Empirical evidence demonstrates this interface between children's peer relations and the development of emotional and social competence through the examination of peer group status and/or social behaviour and socioemotional variables (e.g., Boivin & Hymel, 1997; Boivin, Hymel, & Bukowski, 1995; Boivin, Poulin, & Vitaro, 1994; Crick & Ladd, 1993; Hymel, Bowker, & Woody, 1993a; Hymel, Rubin, Rowden, & LeMare, 1990a; Mott, 2000, unpublished Masters thesis; Parkhurst & Asher, 1992; Rubin, Chen, & Hymel, 1993; Rubin, Chen, McDougall, Bowker, & McKinnon, 1995b, Rubin, Hymel,

& Mills, 1989a). Yet, peer relations extend beyond the context of the peer group network (Rubin et al., 1998), and the importance of considering both dyadic relationships and the larger world of peer relationships has been identified (Schneider, Weiner, & Murphy, 1994). Friendship represents one form of dyadic relationship (Rubin et al., 1998) and is defined as a close, mutual, dyadic relationship with another individual (Erdley, Nangle, Newman, & Carpenter, 2001). Childhood friendships and social interactions promote interpersonal confidence (Renshaw & Brown, 1993) and play a critical role in social and emotional development and adjustment (La Greca, 1997; La Greca & Prinstein, 1999).

As both dyadic and peer network relationships provide unique opportunities for social and emotional growth, the absence of such interactions through socially withdrawn behaviour may be detrimental to normal socioemotional development (Rubin et al., 1995a; Rubin, Coplan, Nelson, Cheah, & Lagace-Seguin, 1999). Social withdrawal, defined by Rubin and Asendorpf (1993, p. 11) as "the act of being alone, of not interacting with others" and associated with self-initiated or peer-imposed isolation, represents a significant risk factor for emotional and behavioural maladjustment (Rubin et al., 1999). Research has demonstrated the predictive relationship between poor peer relations and developmental trajectories, where social withdrawal in particular is associated with peer rejection, loneliness, and negative self-perceptions (e.g., Boivin & Hymel, 1997; Boivin, Thomassin, & Alain, 1989; Hymel et al., 1990a, 1993a; Hymel, Wagner, & Butler, 1990b; Mott, 2000 unpublished thesis; Rubin, Booth, Rose-Krasnor, & Mills, 1995c; Rubin et al., 1995a, 1989a; Rubin, Hymel, LeMare, & Rowden, 1989b; Rubin, Hymel, Mills, & Rose-Krasnor, 1991), as well as later maladjustment (e.g., Boivin et al., 1995; Hymel et al.,1990a, 1993b; Renshaw & Brown, 1993; Rubin et al. 1991, 1995b, 1999; Rubin, LeMare, & Lollis, 1990). These studies illustrate the significance of this domain of research.

Despite the increase in social withdrawal research, inherent limitations exist within the current literature. First, researchers remain naïve to the relationship between friendship and social withdrawal. Despite the evidence for the significance of friendships for normal socioemotional development, empirical evidence to describe these relationships specifically with respect to social withdrawal has yet to be documented. Although the friendships of low-accepted children have been explored (e.g., Bukowski, Hoza, & Newcomb, 1994a; Parker & Asher, 1993), these groups are highly heterogeneous, limiting any conclusions to be drawn. Parker and Asher (1993) clearly state, "attention to these subgroups [e.g. withdrawal or aggressive] might also reveal differences in the quality of their friendships." (p. 620). The question of whether or not socially withdrawn children, a subtype of low status children, experience different friendships than their average peers provides the impetus for this limitation. Second, the impact of both peer networks and dyadic friendships on the socioemotional characteristics of socially withdrawn children has not been considered, and the question remains as to whether friendship variables have unique contributions to, and potentially mediate the relationship between social withdrawal, peer acceptance, and socioemotional adjustment. Finally, the paucity of studies that have investigated the heterogeneous nature of social withdrawal suggests an avenue for future research in the peer relations literature. This study attempts to address these inherent voids.

Purpose of the Study

The primary goal of the present study is two-fold: (a) to examine the unique contributions of dyadic friendship adjustment to socioemotional adjustment and the potential mediating effects of friendship adjustment on the relationship between social withdrawal and socioemotional adjustment; and (b) to investigate the differences in friendship and socioemotional adjustment between socially withdrawn and socially competent children. In addressing the former, a sequential model will be proposed and evaluated describing how social withdrawal and both peer and friendship experiences are linked to measures of socioemotional adjustment. A preliminary exploration of the heterogeneity of social withdrawal will also be undertaken.

Refer to Table 1 for an overview of the definitions of common terms to be referenced throughout this study. Three friendship variables are utilized to represent friendship adjustment: friendship reciprocity, friendship quality, and friendship satisfaction. While friendship reciprocity and friendship quality have been identified as two key components of dyadic friendships (Hartup, 1996; La Greca & Prinstein, 1999; Newcomb & Bagwell, 1996), friendship satisfaction has also been an important consideration when exploring children's friendships (Parker & Asher, 1993).

Measures of loneliness (peer network and dyadic) and social self-perceptions are used to represent socioemotional adjustment for the present study. The former represents a more affectively-laden measure of socioemotional adjustment (i.e., how one *feels* about their social experiences in both their peer group network and a dyadic friendship), while the latter is less affectively-laden and represents one's self-perceptions of competence in their social milieu. Additional variables have also been considered in other studies for measuring socioemotional adjustment including depression, social anxiety, self-perceptions of competence across multiple domains, and global self-worth (e.g., Boivin et al., 1994; Erdley et al., 2001, Fordham & Stevenson-Hinde, 1999; La Greca & Stone, 1993; Nangle, Erdley, Newman, Mason, & Carpenter, 2003). However, measures of loneliness and self-perceptions of competence have been the most prevalent in the research examining socioemotional adjustment, and children's social self-perceptions are of particular interest in the present study.

It is hoped that new insights gained from this study will guide future research and intervention efforts in an attempt to help ameliorate socioemotional difficulties and lead to significant practical implications for socially withdrawn children that are grounded within the broader spectrum of peer relations.

Table 1

Definition of Terms

Terms		Definition	Method of Assessment	
Social Withdrawal	Passive Withdrawal	The act of being alone due to shyness or preference for solitary activity; self-initiated	Measured by peer ratings of social behaviour on specific items:	e.g., "This person is shy; This person would rather play alone than with others; This person is usually sad; This person's feelings get hurt easily"
	Active Isolation	The act of being alone due to isolation by the peer group; peer-imposed; associated with aggressive behaviour		e.g., "This person can't get others to listen; This person has trouble making friends; This person is often left out; This person is usually sad "
Sociometric Assessment		Peer-based assessment regarding a child's social status – popularity (peer acceptance) index	Measured by peer ratings of likeability e.g., "I like to be with this person"	
"Average" Children		Within .5 SD of the classroom mean on measures of likeability, passive withdrawal, and active isolation	Measured by peer ratings of likeability and social behaviour	
(Dyadic) Friendship Adjustment		A term used comprehensively to include three components of dyadic friendships: friendship reciprocity, friendship quality, and friendship satisfaction	Measured by: • Best Friend Nominations • Friendship Ratings • Self-report Questionnaire	
Socioemotional Adjustment		A term used to represent one's social and emotional adjustment. It is defined by one's self-perceptions of loneliness and social competence.	Measured by self-report questionnaires of: • Peer Network (Social) Loneliness • Dyadic (Emotional) Loneliness • Social Self-Perceptions	

CHAPTER TWO: LITERATURE REVIEW

Introduction

The primary purpose of this literature review is to present an overview of the current peer relations, friendship, and social withdrawal literature. This review will be discussed in five major sections. First, the concept of social competence will be introduced and its interconnections with socioemotional development will be emphasized. Second, the developmental significance of peer relations will be outlined, from the perspective of both peer group networks and dyadic friendships, although the latter will receive greater emphasis. Their importance in socioemotional development and adjustment will be emphasized, and gender differences within peer relations will be briefly reviewed. In the third section, social withdrawal is defined and conceptualized and its relationship with socioemotional adjustment is explored. Subsequently, a mediational model is proposed whereby social withdrawal and both peer and friendship experiences have direct and indirect influences on socioemotional adjustment. The fourth section presents a summary of the literature. Finally, the fifth section concludes this chapter with a discussion of the purpose of this study, the statement of originality, and the questions and hypotheses to be addressed.

Social Competence and Socioemotional Development

From a behavioural perspective, social competence may be defined as "the ability to achieve personal goals in social interaction while simultaneously maintaining positive relationships with others over time and across settings" (Rubin et al., 1995c, p. 64). Similarly, Rubin et al.'s (1998) model of social competence refers to the ability of an individual to interact within the peer group system, by way of participating in peer group activities and establishing reciprocal relationships, while at the same time satisfying personal goals and needs. From these perspectives, the association between peer relations and social competence is evident (Rubin & Rose-Krasnor, 1992).

Intimately related to social competence is emotional competence, which may be defined as "…efficacy in accomplishing adaptive goals in emotionally arousing situations" (Saarni, 1999, p. vii). Alternative views of social competence may more effectively capture this emotional component. For example, Rose-Krasnor (1997) proposes a "Prism Model of Social Competence", defining social competence as a multidimensional organizing construct that consists of a Skills Level (social, emotional, and cognitive abilities), an Index Level (Self and Other Domains, i.e., social self-efficacy, qualities of interactions/relationships, peer acceptance), and a Theoretical Level (effectiveness in interaction). Similarly, Bierman and Welsh (2000) suggest that "social competence is best thought of as an organizational construct, reflecting the child's capacity to integrate behavioural, cognitive, and affective skills to adapt flexibly to diverse social contexts and demands" (p. 536-537). These latter perspectives agree with developmental theorists, emphasizing that the development of relationships is influenced by individual characteristics (e.g., emotional skills), social context, and their interaction, and highlight the intimate relationship between social and emotional competence.

Socioemotional development combines the interrelated psychological concepts of social and emotional development and competence, involving social relationships, emotional stability, social-perspective-taking and problem-solving, and self-concept (Jones, 1992). "Emotional experience is developmentally embedded in social experience" (Saarni, 1999, p. 3), whereby individual emotions are shaped by the broader social system. Children who are rejected by their peers frequently have difficulties with both social and emotional competence, as they are unsuccessful in managing their emotional responses in social situations in an effective and appropriate manner (Parkhurst & Asher, 1992).

Perhaps the most important mediator in normal socioemotional development is the establishment of a secure parent-child attachment (Rubin et al., 1995a, 1995c). According to Rubin and colleagues (1995a, 1995c), this secure attachment relationship provides a sense of "felt security" and an "internal working model" that guides how the child perceives the self in relation to their interpersonal milieu, and permits feelings of security, confidence, and self-assurance across novel social situations. In addition, such security leads to social and self-exploration, promoting peer interactions and social learning opportunities, and providing models for future interpersonal relationships. Various researchers have proposed that secure parent-child attachment relationships are predictive of social acceptance and social competence (Booth et al., 1991; Grossman & Grossman, 1991; Shulman, Elicker, & Sroufe, 1994; Sroufe, 1983). Furthermore, securely attached children report greater self-esteem and peer acceptance, lower levels of loneliness, more positive perceptions about their friendships, and are perceived more positively by their peers (see Kerns, 1996).

However, by middle – late childhood, social and emotional developmental gains become more integrated and increasingly more dependent on peers, and relationships to peers become salient to the development of the self-concept (Attili, 1989; Jones, 1992). During this developmental stage, children gain an increased understanding of the nature of peer relations, social comparisons, social perspective-taking and problem-solving, and self-concept.

Evidently, considering the intimate relationship between social and emotional competence, and the central role of children's peer relationships in the development of social and emotional competence and adjustment during middle-late childhood/preadolescence, the significance of difficulties within this domain is apparent and provides the impetus for the present research.

Developmental Significance of Peer Relations

Developmental research (e.g., Mead, 1934; Piaget, 1926; Sullivan, 1953) supports the importance of peer interactions in social and emotional development. According to Piaget's work (1926), peer interactions are a means for reducing egocentrism and provide opportunities for conflict negotiation and resolution, perspective-taking, compromising, evaluating the self and others, and understanding rules and norms. Mead (1934) also recognizes the importance of social interaction for the development of perspective taking and self-understanding. Moreover, Sullivan's (1953) theoretical framework for personality presents the context of peer relationships as critical for the development of interpersonal respect, cooperation, and sensitivity and emphasizes that specific interpersonal needs are satisfied at different stages in development. Sullivan's developmental perspective on the significance of "special" relationships or friendships during preadolescence provides the theoretical framework for the present research and will be revisited.

Both children's peer groups and dyadic friendships, two related but distinct constructs (Parker, Saxon, Asher, & Kovacs, 1999), provide unique contexts for socioemotional development and are intricately intertwined within the broad social context. Peer acceptance is unilateral in nature and represents the degree to which an individual is liked or accepted by their peers (Bukowski & Hoza, 1989; Erdley et al., 2001; Parker et al., 1999; Vandell & Hembree, 1994). In contrast, friendship is bilateral, dyadic, and mutual in nature (Bishop & Inderbitzen, 1995; Erdley et al., 2001; Newcomb & Bagwell, 1995, 1996; Vandell & Hembree, 1994), "a co-constructed dyadic phenomenon" (Schneider, et al., 1994, p. 330). The emerging trend is to acknowledge the complexity of peer relationships by considering potential contributions to socioemotional adjustment from both of these levels of peer interaction (Bierman & Welsh, 2000; Hoza, Bukowski, & Beery, 2000; La Greca & Prinstein, 1999; Parker et al., 1999).

Peer Group Networks

A significant proportion of social interaction takes place within the larger peer group network, comprised of common members who choose and desire to belong together in a cohesive "social unit" with specific roles and relationships (Rubin et al., 1999). Peer groups serve several important functions: (1) teaching children about cooperation, collective goals, and social structures, (2) providing opportunities to observe and learn appropriate leadership skills, (3) controlling hostility, and (4) understanding group loyalty and support (Fine, 1980). According to social learning theory, peer groups provide the context within which children come to understand their social worlds through observation (Bandura & Walters, 1963). "They give meaning to the child's world, contribute to a sense of personal identity, provide social rewards and generally are an essential part of the individual's socialisation." (Erwin, 1998, p. 65).

Two primary terms or social status classifications are associated with peer group networks: peer acceptance and peer rejection. Peer acceptance, or popularity, is defined as "…the experience of being liked and accepted by the peer group" (Rubin et al., 1999, p. 470). In contrast, peer rejection is associated with being actively disliked and rejected by the peer group. Children who are rejected by their peers often lack socially appropriate behaviours, skills, and emotional and behavioural regulation (Coie, Dodge, & Kupersmidt, 1990; Crick & Dodge, 1994). Measures of peer rejection are based on socioemetric nominations, while preferred measures of peer acceptance are derived from sociometric ratings of popularity or "likeability" (e.g., Asher, Parker, & Walker, 1996; Bukowski et al., 1994a; Erdley, Nangle, Newman, & Carpenter, 2001; Parker & Asher, 1993). This latter method provides the most objective evaluation of social status, as each child receives a collective (average) peer evaluation of popularity, reflecting each peer's contribution to the overall level of acceptance (Hymel et al., 1993a).

Throughout the childhood years, the significance of the peer group becomes more profound (Erwin, 1998) and the importance of considering developmental influences on peer relationships is essential. Children's perceptions of peer acceptance/rejection and the behaviours associated with such classifications are dependent on developmental levels. For example, in early childhood, withdrawn, shy, or reticient behaviour is not necessarily viewed negatively by other children (Rubin et al., 1991). However, in middle childhood, when children are more focused on fitting in and being accepted by their peers, the influence of social behaviours becomes more prevalent, and as a result, social withdrawal is strongly associated with peer rejection in the later elementary grades (Bukowski, 1990; Younger & Boyko, 1987; Younger, Gentile, & Burgess, 1993). Finally, in adolescence, the role of the peer group becomes subservient to friendships (Sullivan, 1953).

Over the past few decades, researchers have made great leaps in understanding the behavioural correlates associated with peer acceptance and rejection. However, stepping beyond the peer group to explore children's friendships and systematically examining the links between these two types of peer relations has been sparse (Parker & Asher, 1993).

Dyadic Friendships

Despite the significance of peer acceptance, social status classifications fail to provide a complete picture of the link between peer relationships and adjustment (Hoza, et al., 2000; Kerns, 1996), and as a result, the exploration of children's friendships has become more prevalent in the recent peer relations literature (Rubin et al., 1999). According to Vernberg (1990), "experiencing greater closeness with a best friend is a prophylactic against a decline in children's perceptions of their social acceptance after rejection by their peers" (in Newcomb & Bagwell, 1996, p. 307). Thus, a mutual friend may act as a buffer against the harmful effects of peer rejection or victimization (Erdley et al., 2001; Hodges, Boivin, Vitaro, & Bukowski, 1999; Sullivan, 1953). As social withdrawal is strongly associated with peer rejection, this buffering effect may indeed be present for withdrawn children. Yet, whether or not socially withdrawn children successfully establish reciprocated best friendships, and if the presence of these friendships is associated with more positive socioemotional adjustment than socially withdrawn children without a close companion remains to be understood.

Berndt (1996) suggests that Piaget's Theory of Moral Development (1932) and Sullivan's Interpersonal Theory (1953) both provide the current foundation for friendship research. According to Piaget, unlike parent-child relations, peer groups are egalitarian in nature and foster the development of an "autonomous morality". Cooperation, mutual respect, and reciprocity are the defining features of peer relations, and the acceptance of each other as equals is significant for friendship quality. Sullivan agrees with Piaget with respect to these important features and suggests that these become central during the preadolescent (9-12) years, as one begins to understand the complexity of social relationships. However, he proposes that intimacy, or closeness, is the defining feature of friendships and stresses the significance of "special" relationships or "chumships" for the emergence of all of these friendship features. High levels of intimacy and collaboration, coupled with low levels of competition, determine friendship quality. According to Sullivan, intimacy follows a developmental progression and preadolescence is the earliest stage at which children can achieve intimacy, enhancing the "buffering" role of preadolescent friendship with regards to self-esteem and loneliness. Prior to preadolescence, it is peer acceptance that has a central role in socioemotional adjustment. Sullivan's theory on the importance of friendships provides the conceptual framework for this investigation of the dyadic friendships of socially withdrawn children.

Recent research, in line with Sullivan's (1953) work has proposed that friendships serve several functions: (1) support and development of self-esteem, (2) emotional security, (3) intimacy and affection, (4) instrumental and informational assistance, and (5) companionship and stimulation (e.g., Newcomb & Bagwell, 1995; Parker, Rubin, Price, & Desrosier, 1995; Rubin et al., 1999). Ultimately, according to Rubin and his colleagues, the central purpose of friendships is to provide a secure relationship, beyond the familial system, from which children may explore and make sense of their behaviours.

Dyadic friendships are comprised of three important components: (1) friendship participation, (2) the quality of friendships, and (3) the identity (types) of a child's friend (Hartup, 1996; La Greca & Prinstein, 1999; Newcomb & Bagwell, 1996). The first of these components involves having a mutual or reciprocated friendship with another child (La Greca & Prinstein, 1999; Hartup, 1996; Parker & Asher, 1993). Reciprocity has been a defining feature of friendships in the literature (Rubin et al., 1998). According to Hartup (1996), reciprocity is the "essence" of friendship. Similarly, Asher et al. (1996) and Bukowski, Hoza, and Boivin (1994b) recommend that reciprocal best friend nominations be utilized for assessing the presence of friendships, as reciprocity is an essential feature of friendships. This need for reciprocity makes friendship identification a complex process (Furman, 1996; Hartup, 1996), as a child's friend nomination may be a unilateral or socially desirable choice. Rubin et al. (1999) suggest that between 6% and 11 % of all elementary school aged children are without friends (i.e., do not receive friendship nominations from peers).

The second component of friendship quality refers to the perceived features that characterize a friendship. The importance of examining the quality of children's friendships is well documented (e.g., Asher et al., 1996; Berndt, 1995; Hartup, 1996) and considering children's perceptions (of these qualities) through self-reports is central to the examination of these interpersonal relationships (Furman, 1996). Several instruments have been developed to assess friendship quality, including the *Friendship Qualities Scale* (Bukowksi et al., 1994b), *Friendship Quality Questionnaire* (Parker & Asher, 1993), and *Network of Relationships Inventory* (Furman & Buhrmester, 1985). The *Friendship Quality Questionnaire* (Parker & Asher, 1993), demonstrates the highest psychometric properties, and is the only scale to differentiate between the level of conflict and conflict resolution (Furman, 1996). Furthermore, this scale was developed specifically to explore the links between peer acceptance, friendship quality, and socioemotional adjustment in middle-late childhood. Hence, the relevant utility of this instrument for the present study. This instrument identifies six qualitative dimensions of friendships: (1) validation and caring, (2) conflict and betrayal, (3) companionship and recreation, (4) help and guidance, (5) intimate exchange, and (6) conflict resolution. Collectively, these six factors provide a total measure of friendship quality.

Finally, the third component, the identity of one's friends, has been explored infrequently in the friendship literature. Yet, even folklore acknowledges the significance of who one selects for companions: Birds of a feather flock together (La Greca & Prinstein, 1999). An important question to consider when examining children's friendships is "what are the child's friends like?" (La Greca & Prinstein, 1999, p. 181). The similarity-attraction hypothesis suggests that individuals with similar attributes will be drawn to each other (Byrne & Nelson, 1965, in Kupersmidt, DeRosier, & Patterson, 1995). Consistent with this hypothesis, children who are socially competent seek children who are similarly skilled, and those with behavioural difficulties are drawn towards peers with similar problems. The importance of such behavioural similarities increases throughout childhood and becomes even more significant during preadolescence and adolescence (Hartup, 1983, in Kupersmidt et al., 1995).

The degree to which this behavioural similarity is predictive of children's friendships has not been well documented. Kupersmidt et al.'s (1995) study explored similarity in social and behavioural characteristics amongst children's friendships in middle childhood, and they found that withdrawn children were more likely to be school friends with other withdrawn children. However, this relationship did not hold for best friendships. Parker and Asher (1989, 1993) found that low-accepted children were more likely than their better-accepted peers to be friends with other low-accepted children. In a study by Haselager, Hartup, Van Lieshout, and Riksen-Walraven (1995, in Hartup, 1996), friends were more similar in terms of peer ratings of social withdrawal than nonfriends, although these similarities were greater for aggressive behaviour. Yet, consistent with other research (e.g., Ray, Cohen, Secrist, & Duncan, 1997), rejected children were not more likely to be friends with rejected peers. Results from these studies, although limited, suggest that considering the identity of one's friends may be an important factor in understanding the friendship adjustment of children. Furthermore, beyond social behaviour attributes, the socioemotional adjustment of a child's friends may also be an influential variable in their overall adjustment. As Rose and Asher (2000) highlight, further research is necessary to explore the contributions of the identity of children's friends to better understanding and conceptualizing loneliness.

In addition to these three well-established components, a related variable that has received minimal attention is that of friendship satisfaction. To what degree are children satisfied with their friendship with another peer? To date, three studies have considered this variable in their exploration of friendships (e.g., Dishion, Andrews, & Crosby, 1995; Parker & Asher, 1993; Poulin & Boivin, 1999). Two of these studies (Dishion et al; Poulin & Boivin) focused on aggression and will not be discussed here. However, Parker and Asher (1993) found that low-accepted children, although nonsignificant, reported less satisfaction than their peers. Ultimately, consideration of the relationship between perceived friendship satisfaction and the qualities that characterize a friendship may provide useful information for better understanding these special relationships. In addition, children experiencing social difficulties may report different levels of friendship satisfaction than their peers, which may provide some insight into the overall level of socioemotional adjustment of these children. As a result, friendship satisfaction was also considered to be an important variable for the present research.

Children's expectations about friendships and their functions vary with development and it is important to consider three developmental periods of childhood (Kerns, 1996). During early childhood (3/4-7 years), friends are transient and fun to play with (Flavell, Miller, & Miller, 1993). The two central features of friendships during this period are maintaining harmony and engagement in play (Kerns, 1996). As children advance from early to middle childhood (7/8 – 12 years) and preadolescence (9-12 years), behavioural expectations of friends become less egocentric, changing from play companions to partners who stick up for/help each other and share interests, understanding, self-disclosure, and mutual trust and respect (Bigelow, 1977; Flavell et al., 1993; La Greca, 1997). During middle childhood, friendships provide a context for children to learn about themselves and their peers, understand acceptable social behaviour, and learn essential and appropriate social skills. Initially, children are primarily concerned with avoiding peer group isolation (7-9 years). However, between the ages of 9 and 12, children are more interested in finding a close companion or "chumship" (Erdley et al., 2001; Kerns, 1996; Sullivan, 1953) and begin to recognize characteristics about their friends that they like. By adolescence (13-19 years), the primary features of friendships are intimate disclosure and understanding (Flavell et al., 1993) and the development of a shared identity (Erwin, 1998).

Friendship plays a central role in the development of social competence and self esteem in the middle childhood/preadolescent to adolescent years, and the absence of a mutual companion during these critical years is associated with social isolation and feelings of loneliness (La Greca & Prinstein, 1999). In line with Sullivan's theory, it is this preadolescent developmental level that is examined in the present investigation.

In summary, friendships represent unique components of peer relations that fulfill specific needs across developmental levels and the significance of exploring the presence and quality of friendships and the identity of children's friends is evident (Hartup, 1996; Newcomb & Bagwell, 1996). Similarly, whether or not a child is satisfied with their friendships provides insight into the friendship adjustment of children. "Clearly, the company that children keep is an aspect of the developmental niche that has consequences for children's long-term development and adaptation" (Bukowski, Newcomb, & Hartup, 1996, p. 14), illustrating the significance of the current investigation to explore these friendship variables.

Gender Differences in Peer Relations

According to Erwin (1998) and Rose and Asher (2000), by middle childhood friendships are almost completely sex-segregated, although boys are even more likely than girls to reject the opposite sex. There exist distinct differences between the friendships of boys and girls (Benenson, Apostoleris, & Parnass, 1997; Erwin, 1993; 1998; La Greca, 1997; Rose & Asher, 1999; 2000). The friendships of girls are more *intensive* and supportive in nature, emphasizing intimacy, trust, sharing, loyalty, sympathy, and emotion with a single exclusive best friend (dyadic interaction). In contrast, boys' friendships are described as *extensive*, focusing on a large peer group or social network, group physical activities, and characterized by more aggression and competitiveness. Both girls' and boys' friendships involve conflict; however, girls are more inclined to compromise, sympathize, and use positive conflict resolution strategies, while boys are led by self-interest and adopt a more blaming, hostile, or aggressive stance. Empirical research has demonstrated that girls report higher levels of more positive friendship features (i.e., emotional support and caring) than boys (Parker & Asher, 1993). However, these researchers also found that positive friendship qualities are just as strongly correlated with measures of loneliness for both genders and low-accepted boys are less likely than their female counterparts to have a mutual best friend. In addition, although nonsignificant, boys reported greater friendship satisfaction. A positive correlational relationship between peer acceptance and friendships has been found for both genders; however, the importance of friendships may be more evident for boys than for girls (Erdley et al., 2001). In a study by Erdley et al. (2001), number of best friendships, quality of best friendships, and peer acceptance all uniquely predicted feelings of loneliness for boys, while only the total number of friendships was a unique predictor of loneliness for girls. Hoza et al. (2000) found that boys experienced lower quality friendships and higher levels of dyadic loneliness. Peer rejection has been associated with difficulties of an internalizing nature for boys rather than girls (Burks, Dodge, & Price, 1995). This fits with the *extensive* nature of boys' friendships and the need for large peer group networks for their emotional support. Evidently, gender differences are an important variable to consider in children's peer relations, but limited empirical research has been documented. Therefore, further exploration of gender differences is necessary to examine the relationship between these different aspects of peer relations and socioemotional adjustment (Rose & Asher, 2000).

Socioemotional Adjustment and Peer Relations

Bierman and Welsh (2000) highlight the powerful influence that peer relationships have on socioemotional development. Peer group acceptance and friendships are both essential for healthy socioemotional adjustment (Furman, 1996; Hartup, 1992; Sullivan, 1953), providing unique, complex, and complementary contributions to development (Furman & Robbins, 1985; Hoza et al., 2000; Sullivan, 1953). Conversely, these variables in preadolescence also have similar and unique implications for predicting social and emotional maladjustment in adulthood (Bagwell, Schmidt, Newcomb, & Bukowski, 2001).

According to Parker et al. (1999) and Erdley et al. (2001), the majority of research that has examined socioemotional adjustment (e.g., loneliness) has done so strictly in relation to peer acceptance, and has not considered the friendship component of peer relations. Yet, friendships are the crux of socioemotional development (Parker & Gottman, 1989; Rubin et al., 1999) and the heterogeneous nature of socioemotional adjustment remains unexplained (Parker et al., 1999). Within the last few decades, research has indicated that childhood friendships promote interpersonal confidence and socioemotional adjustment (Berndt, 1989; La Greca, 1997; La Greca & Prinstein, 1999; Renshaw & Brown, 1993; Rubin et al., 1998) and provide socioemotional benefits beyond peer group acceptance (Rose & Asher, 2000). Parker et al. (1999) suggest that "…in neglecting friendship, loneliness researchers have overlooked much of what is psychologically salient to children about their social lives with peers and, consequently, are not addressing the particular explanations for the distress experienced…"(p. 202).

According to Weiss (1973), the absence of an intimate friendship for self-disclosure is associated with isolation and loneliness. More recent research has supported Weiss' argument. For example, research that has examined children with and without friends reveals that children who are friendless may be characterized by deficits in social skills and social competencies, less mature friendship conceptions, less altruism and trust, more negative social status, increased levels of isolation and disruption, poorer adjustment, and negative self-perceptions (Newcomb & Bagwell, 1996). Parker and Asher (1993) found that regardless of peer acceptance, the absence of a best friend is associated with greater loneliness. Alternately, reciprocated friends display higher levels of friendship qualities than non-reciprocated friends, including loyalty, closeness, and equality, that are critical for the development of social competence and emotional well-being (Bukowski et al, 1994b; Newcomb & Bagwell, 1996). Bagwell, Newcomb, and Bukowski (1998) found that the lack of a mutual friendship in preadolescence influences the presence of subsequent externalizing difficulties. Finally, Rubin et al. (2004) demonstrated that lower friendship quality is associated with more negative social self-perceptions and parent-rated internalizing problems.

Research has explored the relationship between peer acceptance and friendships. For example, Asher and Parker (1989) investigated this relationship and found that more than half of the low-accepted children had at least one friend. Similarly, Saxon (1996) found that approximately 50% of low-accepted children reported a mutual friendship. Parker and Asher (1993) found that "high-accepted and average-accepted children were about twice as likely to have a very best friend as low-accepted children" (p. 619), and the friendships of rejected children were less emotionally supportive (i.e., less perceived validation and caring, help and guidance, conflict resolution, and intimate exchange, and more conflict and betrayal). However, consistent with other research, they did emphasize that some high-accepted children may lack a close dyadic friendship, while some low-accepted children may form a close relationship with a peer. In their concluding remarks, these researchers outlined the importance of future research to consider the heterogeneous composition of the low-accepted children when exploring friendship quality.

Additional research with children and adolescents has demonstrated correlational relationships between socioemotional adjustment and both peer acceptance and friendship. Bukowski and Hoza (1989) and Bishop and Inderbitzen (1995) found stronger relationships between friendship and adjustment (i.e., loneliness and self-esteem, respectively) than between peer acceptance and adjustment for groups of adolescents, supporting the notion that a close friendship may buffer against the deleterious effects of peer rejection (Parker et al., 1995). In middle-late childhood/preadolescence, Parker and Asher (1993) found that friendship reciprocation, friendship quality, and level of peer acceptance all had separate and unique contributions to loneliness, and in particular, poor acceptance and the absence of a friend predicted greater loneliness. Similarly, Bukowski et al. (1993) found that both peer acceptance and friendship influence feelings of loneliness, and friendship is a mediator between peer group acceptance and loneliness. Subsequently, Vandell and Hembree (1994) found that both mutual friendships and social status were uniquely related to children's adjustment, where reciprocated friendships positively predicted socioemotional adjustment, and peer rejection was associated with poor socioemotional adjustment.

More recently, Hoza et al. (2000) examined the distinct components of loneliness associated with peer acceptance (social/peer network loneliness) and friendship (emotional/dyadic loneliness) in middle-late childhood/preadolescence and found that lower peer acceptance was more strongly correlated with higher levels of social loneliness than emotional loneliness. In contrast, not having a reciprocated best friendship was more strongly correlated with higher levels of emotional loneliness than social loneliness. Their findings also revealed stronger correlations between friendship quality and dyadic loneliness than between peer acceptance and this component of loneliness. Erdley et al. (2001) investigated the relationship between children's friendship experiences, peer acceptance, and feelings of loneliness and depression, while simultaneously considering gender differences. Their findings revealed that greater peer acceptance was strongly related to having a higher number of best friendships, and friendships in general; however it was not related to friendship quality. Furthermore, while lower peer acceptance, friendship quality, and friendship quantity all uniquely predicted higher levels of loneliness for boys, quantity of friendships was the sole predictor for girls. Similarly, lower friendship quantity and quality uniquely predicted higher levels of depression for boys, but not for girls. This latter research suggests that additional research is necessary to further explore potential gender differences in the relationship between friendship, peer acceptance, and adjustment in middle-late childhood/preadolescence.

Common to all of these aforementioned studies is the failure to consider the heterogeneity within children of low social-status. Three studies have explored the relationship between specific types of social behaviour (i.e., aggressive, isolated, and shy behaviours) and friendship quality. East and Rook (1993), in their investigation of isolated and aggressive children, found that isolated children, in contrast to aggressive children, perceived their friendships to be low in social support and were more lonely than the control group of children. However, these researchers failed to explore the primary friendship qualities that have been outlined in the literature. Poulin and Boivin (1999) explored the relationship between proactive and reactive subtypes of aggressive children and friendship quality and found that these two subgroups, after controlling for peer status and friendship reciprocity, exhibited distinct patterns of friendship quality. Specifically, proactive aggressors reported friendships that were more supportive and satisfying, and characterized by less conflict than reactive aggressors. Finally, Fordham and Stevenson-Hinde (1999) explored the links between shyness, friendship quality, and adjustment during middle childhood. Despite finding no significant relationship between shyness and perceptions of friendship quality, their results indicated that by age 10, but not earlier, greater friendship quality is associated with more positive socioemotional adjustment.

Evidently, different components of friendships have been examined among children during middle-late childhood/preadolescence and adolescence with different social status and social behaviour classifications. Yet, based on this review of the literature, no research has specifically or extensively explored the relationship between friendships, socioemotional adjustment, and a specific heterogeneous category of maladaptive social behaviour that is highly correlated with poor peer acceptance: social withdrawal. Therefore, the present research emerges from these apparent "gaps" within the literature.

In the next section, the nature and correlates of social withdrawal will be explored. This illustration, combined with the theoretical and empirical frameworks that have been presented thus far for the significance of peer relations for socioemotional development and adjustment, provide the foundation for the current investigation.

Social Withdrawal as Social Dysfunction

Bierman and Welsh (2000) propose that:

> "Child social dysfunction is reflected in two core adaptational difficulties: (a) the inability to get along in a peer group, as reflected in a pattern of stable social rejection, social victimization, or both and (b) difficulties initiating or maintaining positive friendships [resulting in poor quality friendships]…". (p. 536).

Evidently, difficulties with both components of the peer relations network are highlighted in this definition. Yet, the current body of research within the domain of peer relations, and particularly for social withdrawal, has been one-sided, focusing on social status, while neglecting to consider dyadic friendship experiences.

Socially withdrawn children are defined as "those children who are *observed* to interact with their peers significantly *less* often than their age-mates" (Rubin, 1985, p. 126-127). They are unable to demonstrate socially appropriate and acceptable behaviour and display "dysfunctional styles of interaction", perpetuating a cycle of social withdrawal and rejection (Stewart & Rubin, 1995). The "internal working model" for these children is one of an insecure parent-child attachment relationship, characterized by discomfort and unpredictability, and promoting anxious or noxious social behaviours and decreased positive social learning opportunities within the peer social system (Rubin et al., 1995a; 1995c). Their negative self-perceptions, and/or felt insecurity with peer relationships are enhanced by the recognition of social incompetence.

Research has documented the stability of social withdrawal from early to late childhood (Rubin et al., 1989a). By middle to late childhood, when the salience of peer group acceptance/rejection becomes more prevalent (La Greca & Prinstein, 1999), social withdrawal is highly correlated with peer rejection (Boivin et al., 1989; French, 1988; Hymel et al., 1990a). During this time, withdrawn-rejected children engage in fewer peer interactions reflecting passive withdrawal from, or active isolation by their peers and are at-risk for maladaptive social and emotional development (Newcomb, Bukowski, & Pattee, 1993).

Identifying Social Withdrawal

The utilization of peer assessment methods is commonplace within social behaviour research and such methods have demonstrated strong reliability, stability, and validity (Pepler & Craig, 1998). Peer assessments of social behaviour (e.g., the Revised Class Play [RCP], Masten, Morison, & Pelligrini, 1985) provide a detailed account of the behaviours that are associated with peer social status and social withdrawal (i.e., sensitivity/isolation factor), and represent a stable measure of withdrawal later in childhood (Rubin & Mills, 1988). Through the use of multiple observers (Bierman & Welsh, 2000; Hymel & Rubin, 1985), these techniques provide significant insight into understanding peer relationships and peer group systems (Williams & Gilmoux, 1994), and have been more effective, from a risk perspective, in predicting later maladjustment (Parker & Asher, 1987; Younger, Gentile, & Burgess, 1993). Furthermore, children are the most knowledgeable in how much they like to be with others (Landau & Milich, 1990) and they provide an "insider" perspective of the important characteristics associated with peer acceptance (Rubin et al., 1999).

Peer assessment methods demonstrate greater accuracy over adult reports, as peers are present for more frequent and more varied experiences (Craig & Pepler, 1995), and they are able to identify those behaviours that are not salient or may be too infrequent for adults to reliably observe (Rubin et al., 1998; Rubin et al., 1999). Teacher ratings of behaviour (e.g., Boivin & Begin, 1989; Harrist et al., 1997; Hymel et al., 1990a; Rubin & Mills, 1988; Rubin et al., 1989b, 1991, 1993, 1995) and behavioural observations (e.g., Harrist et al., 1997; Rubin & Mills, 1988; Rubin et al., 1989b, 1991, 1995b) have been utilized, alone or in conjunction with peer assessment methods. However, both adult observations (Realmuto, August, Sieler, & Pessoa-Brandao, 1997) and behavioural ratings (Rubin et al., 1990) fail to capture the unique information from peers who are actively involved in the child's social functioning and relationships in natural social settings. As well, the correlations for peer assessments of social withdrawal across different age intervals are substantially higher than correlations based on behavioural observations (Rubin et al., 1995a).

Within social behaviour research, social withdrawal in particular is associated with diverse conceptualizations, and it is the inconsistent terminology and ill-defined nature of this construct that plagues research within this domain. Empirical research on social withdrawal has examined sociometric status groups such as rejected, neglected, and unpopular, and their association with socially withdrawn behaviour. Withdrawn children have been categorized as both neglected and/or rejected based on peer nominations of "like most/least" (e.g., Asher & Wheeler, 1985; Boivin et al., 1994; Crick & Ladd, 1993; Rubin et al., 1993), and unpopular or low-accepted on the basis of peer ratings of "likeability" (e.g., Hymel et al. 1993a; Renshaw & Brown, 1993; Rubin et al., 1995a). However, research has demonstrated that unlike rejected children, neglected children are not withdrawn (Coie et al., 1990) and do not experience social difficulties, more negative social feelings, or lower peer acceptance than "average" children (Boivin & Begin, 1989; Boivin et al., 1994; Coie et al., 1990; Rubin et al., 1989a, 1993). Furthermore, the peer rating method used for the unpopular classification, although it may combine the rejected and neglected subgroups, provides a more objective evaluation of social status based on a collective peer evaluation (Hymel et al., 1993a), demonstrates higher reliability (Gresham & Little, 1993), provides greater description (Maassen, van der Linden, & Akkermans, 1997), and is viewed more preferably in terms of sociometric utility (Maassen, van der Linden, Goossens, & Bokhorst, 2000). Similarly, based on the level of cutoff scores (0.5 - 1.0 *SD* from the mean) used for identifying unpopular children (see Hymel et al., 1993a for a review), it is likely that "neglected" children would not be included in this category. As a result, it seems appropriate to consider the unpopular sociometric subgroup classification as the first step in identifying withdrawn children, and it is this perspective that guides the current study.

In conceptualizing social withdrawal, it is necessary to consider both sociometric *and* behavioural classifications (Bierman & Walsh, 2000), as sociometric subgroups exhibit different behavioural profiles (i.e., aggression, withdrawal, and/or their combination) (Boivin & Begin, 1989; Hymel et al., 1990b; 1993a; Rubin et al., 1993). The traditional view of the construct of social withdrawal adopts a unidimensional stance with respect to social behaviour (Bowker, Bukowski, Zargarpour, & Hoza, 1998). In this respect, social withdrawal is an "umbrella" construct that …"is operationalized by all forms of solitude across contexts of familiarity and unfamiliarity…" (Rubin, Burgess, & Coplan, 2002).

Rubin and Mills (1988) were the first researchers to consider the multidimensional nature of social withdrawal by deriving conceptual subgroups for social withdrawal on the basis of behavioural classifications: passive withdrawal and active isolation. Passive withdrawal refers to the more submissive withdrawn child who has feelings of anxiety and loneliness and passively withdraws from peers (i.e., self-initiated or voluntary isolation), while active isolation characterizes children who exhibit more rambunctious, impulsive, and immature activity and experience active rejection and isolation by peers (i.e., peer-imposed or being forced out of the group). They utilized specific items on the RCP to differentiate between these subgroups. The passive withdrawal classification combined four items: (1) someone who would rather play alone, (2) someone who is shy, (3) someone whose feelings get hurt easily, and (4) someone who is usually sad. The active isolation classification was comprised of three items: (1) someone who is often left out, (2) someone who has trouble making friends, and (3) someone who can't get others to listen. According to Rubin et al. (1988, 1989b), the active isolate subtype may exhibit behavioural withdrawal in conjunction with more noxious behaviours (i.e., aggression, teasing) that cause isolation by the peer group. Yet, they remain markedly distinct from the aggressive children. These items from the RCP, or variations in their combination, have frequently been utilized by researchers to identify withdrawn children, and it is these items which will define socially withdrawn children for the current study.

Younger and Daniels (1992) examined the construct reliability of this two-factor model through their exploration of the reasons why children in middle childhood nominate their peers as either passively withdrawn or active isolated. Their study revealed that children did in fact identify differences in socially withdrawn behaviour between the defining criteria of these two subgroups, thus providing empirical evidence to support this distinction. However, they found that children perceived the item "someone who is usually sad" as belonging to both constructs. Hoza et al (1995) also found support for this distinction between passive isolation and isolation resulting from rejection in their study, which examined variables predictive of internalizing and externalizing difficulties. Another study has utilized this behavioural distinction in preschool (Harrist, Zaia, Bates, Dodge, & Pettit, 1997). However, there exists limited empirical support for the two-dimensional nature of social withdrawal, as research has often considered the passive withdrawal subgroup, based on the same four items (or subset of) from the RCP, to be representative of social withdrawal (e.g., Boivin et al., 1995; Rubin et al., 1995a).

A three-factor model has been proposed by Asendorpf (1991) and Coplan, Rubin, Fox, Calkins, and Stewart (1994) for preschoolers. This model identifies three subgroups of withdrawal: reticient, solitary-passive, and solitary-active. However, throughout the elementary school years, Asendorpf concluded that the reticient and solitary-passive classifications become indistinguishable, alluding to a more appropriate two-factor model for middle childhood and adolescence.

More recently, Bowker et al. (1998) set out to examine the psychometric and predictive properties of the two-factor model of social withdrawal. Bowker and colleagues conducted factor analyses to determine the construct validity of the single-factor and two-factor models of social isolation amongst a group of children in grades three, four, and five. Utilizing the items identified by Rubin and Mills (1988) for the passive withdrawal and active isolation groups, as well as additional items for an aggressive group, they investigated the model of best fit and the predictive utility of such classifications. Results from this study indicated that a two-factor model with "sadness" on both factors was indeed the best fit, providing empirical evidence for the heterogeneous nature of social withdrawal. They found only 20-40% of shared variance between the two factors, indicating the distinct nature of these constructs. In addition, they concluded that children perceived active isolation in a more negative light and active isolation was correlated with peer acceptance/rejection, aggression, and externalizing difficulties, while passive withdrawal demonstrated a stronger relationship with internalizing problems. Inevitably, "by ignoring the multidimensionality of social isolation, researchers run the risk of underestimating the link between isolation and other phenomena and may not fully reveal the effects that different forms of isolation and withdrawal have on development." (Bowker et al., 1998, p. 460).

In summary, the utility of peer assessment methods for identifying social withdrawal is well documented, and distinguishing between the passive withdrawal and active isolation subtypes of withdrawal is substantiated empirically. Adopting a two-dimensional approach to the construct of social withdrawal has important implications for assessing current and predicting subsequent maladjustment (Younger & Daniels, 1992), as socioemotional and friendship adjustment may be subgroup specific. The present research will incorporate these peer assessment methods in an exploration of the two-factor model of social withdrawal.

Social Withdrawal and Socioemotional Adjustment

The relationship between social withdrawal and socioemotional difficulties has been well-documented, clarifying the critical role that social interaction and peer relationships have in normal social development and social and emotional adjustment (La Greca & Prinstein, 1999). Investigations of loneliness and self-perceptions of competence have dominated this research, and while socioemotional adjustment is not necessarily limited to these socioemotional variables, they do provide the basis for defining and measuring socioemotional adjustment in the present study.

Loneliness

Feelings of loneliness have frequently been examined in previous research on social withdrawal. Loneliness is "a subjective dissatisfaction with one's relationships" (Jones, Rose, & Russel, 1990, p. 251) and is related to problems in social interactions and inappropriate social behaviour. Empirical research has examined feelings of loneliness amongst social status subgroups (e.g., Asher, Hymel, & Renshaw, 1984; Asher & Wheeler, 1985; Boivin et al., 1989; Boivin et al., 1994, 1995; Crick & Ladd, 1993; Parkhurst & Asher, 1992). Research findings indicate that lower social status children (i.e., unpopular or rejected) report greater levels of loneliness than higher-status peers (Asher et al., 1984; Asher & Wheeler, 1985; Crick & Ladd, 1993). However, these rejected children were examined as a homogeneous group. In contrast, Parkhurst and Asher (1992) and Boivin et al. (1989) distinguished between aggressive-rejected and submissive-rejected (withdrawn) children and found that the submissive-rejected children reported greater loneliness than their aggressive-rejected counterparts. Rubin et al. (1993) found withdrawn children did not report greater loneliness than their nonwithdrawn peers.

Such inconsistencies in reported loneliness may be reflective of the failure to consider the heterogeneous nature of social withdrawal. Researchers have differentiated between passive withdrawal and active solitude or active isolation (e.g., Boivin et al., 1995; Rubin et al., 1989b, 1991; Rubin & Mills, 1988), or withdrawn-rejected and withdrawn-aggressive-rejected children (Boivin et al., 1994), and found greater feelings of loneliness and social dissatisfaction associated with passively withdrawn and withdrawn-rejected children. These latter studies introduce inconsistencies in the socioemotional profiles within subtypes of withdrawn children.

In all of these studies, loneliness has been embedded within the context of the peer network, and has never been considered in conjunction with dyadic friendships. Weiss (1973) first noted that loneliness may include both social isolation and emotional isolation, and Asher et al. (1990) expanded on this concept and derived two types of loneliness, social loneliness and emotional loneliness:

> Social loneliness is theorized to stem from the absence of a network of social relationships or from feeling that one is not part of a group. Emotional loneliness is theorized to stem from lack of a close, intimate attachment to another person. (Asher et al., 1990, p. 256)

Some studies that have examined loneliness have explored both peer network and dyadic relationships (e.g., Bukowski et al., 1994b; Parker & Asher, 1993; Vernberg, 1990). However, a unidimensional measure of loneliness has been utilized (e.g., *Loneliness and Social Dissatisfaction Questionnaire*: Asher et al., 1984; Asher & Wheeler, 1985; Cassidy & Asher, 1992). Despite the good psychometric properties of this instrument, it fails to consider the different dimensions of loneliness (i.e., social and emotional) that pertain to close dyadic relationships and the larger peer network (Hoza, et al., 2000). Socioemotional adjustment difficulties such as social loneliness and emotional loneliness may reflect deficits in peer network interactions and/or dyadic relationships

(Hoza et al., 2000), and therefore, both dimensions should be considered.

According to Hoza et al. (2000), research that has considered differentiating subtypes of loneliness has not adequately addressed social and emotional loneliness due to the failure to consider the important features of friendships or the use of inappropriate instruments. The unpublished Relational Provision Loneliness Questionnaire (Hayden-Thomas, 1989, in Hoza et al., 2000) considers both components of loneliness, but is missing central friendship features relating to intimate relationships and fails to include the word "loneliness" amongst its items, suggesting that it may be more of a measure of social support than actual loneliness (Terrell-Deutsch, 1993). The Peer Support Subscale of the Survey of Children's Social Support (Dubow & Ullman, 1989, in Hoza et al., 2000) does not emphasize the dyadic nature of friendships. Finally, the Network of Relationships Inventory (Furman & Buhrmester, 1985) fails to consider social needs in relation to the peer group.

To address these limitations, Hoza et al. (2000) developed the Peer Network and Dyadic Loneliness Scale (PNDLS). This scale assesses both social loneliness and emotional loneliness, and was validated against measures of peer sociometrics, friendship quality, and loneliness and social dissatisfaction. Results revealed unique correlations between the PNDLS and the existing measures, supporting the need to examine loneliness in relation to peer group and dyadic relationships. This has important implications for the evaluation of social withdrawal. First, peer group and dyadic relationships need to be simultaneously examined in order to fully understand the effects of such interactions on social behaviour and socioemotional adjustment (e.g., buffering). Second, an understanding of children's insight into their social difficulties and specific deficits may help to guide intervention efforts. Thus, for the purpose of this study, the PNDLS will be utilized to acknowledge these unique contributions and provide additional empirical support for the use of this instrument.

Self-Perceptions of Competence

In addition to loneliness, empirical research has illustrated the difference in self-perceptions of competence as a function of sociometric status and social behaviour (Boivin & Begin, 1989; Boivin et al., 1989; Franke & Hymel, 1985; Hymel et al., 1993a; Rubin and colleagues, 1988, 1989b, 1993). Self-perceptions of competence reflect a child's perceived ability or competence across various social and nonsocial domains (Harter, 1982, 1985). Children who are rejected by their peers exhibit negative self-perceptions of competence across multiple domains, including social, athletic, academic, physical appearance, behavioural, and self-esteem (Boivin & Begin, 1989). Similarly, rejected children demonstrate low self-efficacy and negative expectations of peer status (Hymel & Franke, 1985).

Beyond simple sociometric classifications, Boivin et al. (1989) found that withdrawn-rejected children reported more negative self-perceptions of competence in the academic and behavioural domains than aggressive-rejected children. Rubin et al. (1993) found that while withdrawn children did not experience more negative social self-perceptions than their aggressive or average counterparts, they did perceive themselves to be less physically competent. Considering the heterogeneity within social withdrawal, Rubin and colleagues (1988, 1989b) found that passively withdrawn children, unlike active isolates, reported more negative self-perceptions of social competence. Furthermore, Hymel et al. (1993a) found that withdrawn unpopular children reported more negative and more accurate self-perceptions of competence across academic, athletic, peer relations, and appearance domains, while aggressive-withdrawn unpopular children overestimated their abilities.

In light of the research and the increased emphasis on the importance of friendship quality in socioemotional adjustment, it is evident that a substantial component involving the influence of friends is missing from these studies. Similar to the construct of loneliness, self-perceptions of competence, and particularly social competence, must be considered in conjunction with friendship adjustment and it is this idea that guides the present study. While many of these aforementioned studies considered self-perceptions across multiple domains, of particular interest for this study are children's self-perceptions of their social competence. Thus, for this reason, and due to time constraints, only a measure of social self-perceptions will be utilized.

Longitudinal Research

Longitudinal research has illustrated the predictive relationship between social withdrawal and subsequent maladjustment. For example, Rubin and Mills (1988) found that peer assessed passive withdrawal in grade two predicted depressive symptomology and feelings of loneliness in grade five. Rubin et al. (1989a) found significant predictive relationships between early childhood social withdrawal and self-reports of greater loneliness and social incompetence in middle childhood. Hymel et al. (1990a; 1993b) found that peer assessed socially withdrawn behaviour in early childhood (grade two) significantly predicted negative social self-perceptions (loneliness and perceptions of social incompetence) three years later. Rubin et al. (1991) found that grade two peer assessed passive withdrawal was significantly related to levels of loneliness in grade four and depressive symptomology in grade five. Further research by Rubin and colleagues (1995b), in their longitudinal examination of internalizing and externalizing problems in adolescence, found that childhood social withdrawal was a unique and significant predictor of adolescent loneliness and negative self-regard. Finally, Hoza et al. (1995, in Vargo, 1995) found that passive isolation predicted teacher-rated internalizing problems two years later.

In summary, research that has examined loneliness and/or self-perceptions of competence illustrates that withdrawn children demonstrate more negative affective experiences and may be at risk for socioemotional maladjustment.

Gender Differences

Few research studies have examined gender differences in loneliness or self-perceptions amongst socially withdrawn children and the findings from those that have are inconclusive. For example, Boivin and Hymel (1997), in their study that will be discussed in the subsequent section, found a stronger direct correlation between withdrawal and loneliness for girls than for boys, while negative peer status was a more significant predictor of loneliness for boys than for girls. Rubin et al. (1993) found that withdrawn boys reported greater loneliness and more negative self-perceptions than their nonwithdrawn counterparts and this same pattern did not exist for females, suggesting that social withdrawal may be more problematic for boys than for girls. Similarly, Rubin and Stewart (1996) suggested that withdrawn boys may experience greater socioemotional difficulties than withdrawn girls and be at risk for later maladjustment. In contrast, Renshaw and Brown (1993) found no gender differences in the predictive relationship between social withdrawal and loneliness. Evidently, these limited and equivocal findings warrant further investigation of gender-related differences in the socioemotional adjustment of socially withdrawn children.

Predicting Measures of Socioemotional Adjustment

Research has examined a combination of variables in predicting measures of socioemotional adjustment. Many child-by-environment models have been proposed that highlight the unique and combined effects of both within-child variables (i.e., behavioural predispositions) and social-relational environmental forces (i.e., peer relationships and experiences) (Ladd & Troop-Gordon, 2003). Within these models, additive frameworks have been proposed, whereby peer experiences add significantly to the likeliness of maladjustment. For example, Asher et al. (1990) proposed an additive model of loneliness whereby social withdrawal, poor peer acceptance, few or no friendships, and an internal stable attributional style, all combine to predict increasing loneliness, and partial support for their model was found. Renshaw and Brown (1993) similarly examined these concurrent and longitudinal predictors of loneliness in middle childhood to preadolescence, and found that social withdrawal, lower peer acceptance, few or no friendships, and an internal-stable attributional style all predicted increased levels of current and future loneliness, supporting an additive model for loneliness.

Other researchers have considered moderator and mediator models, whereby peer experiences may make the child more susceptible to negative outcomes (moderator), or the effects of certain variables (child or relational) on adjustment are influenced by intervening factors (mediator) (Ladd & Troop-Gordon, 2003). Bukowski et al. (1993) explored the relationship between popularity, friendship, and two different measures of adjustment (belongingness and loneliness) amongst preadolescent children. These researchers found that popularity was directly linked to mutual friendship, friendship quality, and belongingness. In contrast, popularity was indirectly linked to loneliness via the presence of a mutual friendship and belongingness. Thus, support was found for the mediational role of friendship in the relationship between popularity and loneliness, and for the potential buffering nature of friendships for unpopular children. Additional research by Bukowski and colleagues (1996) examining the relationship between popularity and friendship amongst children in middle-late childhood/preadolescence revealed that popularity predicts and/or temporally precedes friendship experiences. In other words, popularity is "…an affordance of friendship" (p. 191).

In line with this research, Nangle et al. (2003) also investigated the relationship between popularity, friendship (quantity and quality), and two adjustment measures (loneliness and depression) in middle-late childhood/preadolescence. Their findings supported a fully mediational model of adjustment, whereby popularity strongly influenced friendship (quantity and quality), which in turn influenced loneliness. Furthermore, loneliness mediated the impact of the peer variables on depression. "It appears that popularity is important for setting the stage for relationship development, but that it is dyadic friendship experiences that most directly influence feelings of loneliness and depression" (p. 546). No sex differences in the impact of peer variables on adjustment were found.

However, the question remains as to whether similar mediating relationships (i.e., peer relationships and experiences) exist between problematic social behaviour (i.e., social withdrawal) and maladjustment. Preliminary support for this premise has been documented in three studies (Boivin & Hymel, 1997; Boivin et al., 1995; Ladd & Troop-

Gordon, 2003). Boivin and Hymel (1997) proposed and tested a two-stage mediational model of adjustment (loneliness and social self-perceptions) in relation to specific social behaviours (withdrawal and aggression). This model suggested that the relationship between social withdrawal and loneliness or social self-perceptions is mediated by negative peer experiences (i.e., social preference-first stage mediator, and victimization by peers and number of affiliations-second stage mediators). For social withdrawal, empirical support for their model was found. Both social preference and victimization partially mediated the relationship between social withdrawal and adjustment. However, their findings suggested that the number of affiliations (i.e., based on peer perceptions and *not* equivalent to reciprocated friendships) did not mediate this relationship. Social withdrawal and social preference continued to exert direct effects on adjustment, suggesting that children who experience difficulties with their peer relations may be more vulnerable to internalizing difficulties and alienation.

Boivin et al. (1995), in their research, attempted to evaluate whether this model would be replicated in a longitudinal study and could be extended to the prediction of depressed mood. Their pattern of findings generally confirmed and extended previous results regarding the sequence of mediations (Boivin & Hymel, 1997). These mediational models allude to the notion that more positive peer experiences (i.e., a close friendship with positive features) may also mediate the pathway between social withdrawal and socioemotional adjustment.

Ladd and Troop-Gordon (2003) advanced this research by considering one component of friendship as a potential mediator: friendlessness. These researchers, in a longitudinal study, tested a mediational model whereby the relationship between later psychological adjustment and early problematic social behaviour is mediated through chronic peer adversity and beliefs (self and peer) that result from these adverse experiences. In their model, unlike Boivin & Hymel (1997), social self-perceptions sequentially preceded loneliness outcomes. Furthermore, anxious and fearful behaviour in early childhood, rather than social withdrawal in middle childhood specifically, was the behaviour explored, and these behaviours were based on teacher ratings rather than peer assessments. Generally, results supported their mediational model. Of particular interest for the current investigation were their findings that emerged for friendlessness and peer rejection. Although significant associations between concurrent friendship, social status, and maladjustment were not found, chronic friendlessness and rejection had unique and direct contributions to various maladjustment outcomes, and were found to mediate the connection between early social behaviours/dispositions and subsequent maladjustment. In particular, chronic friendlessness directly predicted teacher-rated internalizing problems and this relationship was partially mediated through social self-perceptions. No direct links were found between friendlessness and loneliness, rather this relationship was completely mediated by peer beliefs. These findings suggest that friendship experiences are an important mediating variable to consider when investigating the link between social behaviour and maladjustment.

Further research is needed to investigate the relationships between social withdrawal, peer experiences, and maladjustment. It remains uncertain as to whether a "buffering" relationship may exist for middle-late childhood/preadolescence, particularly with respect to social withdrawal. Furthermore, in addition to having a friend, the nature of that friendship (in terms of quality and satisfaction) may also reveal additional mediational processes at play. By focusing on the relationship between socioemotional adjustment, friendship adjustment, and socially withdrawn behaviour in the present study, we may gain new insights into the amelioration of social difficulties of students at-risk for later maladjustment.

Social Withdrawal and Socioemotional Adjustment: A Mediational Model

These aforementioned studies present models of the relationship between social behaviour and/or peer acceptance and maladjustment (i.e., negative social self-perceptions, loneliness, and/or depression). Collectively, three conclusions can be drawn from these studies: 1) peer experiences are integral influences on maladjustment, 2) friendship and popularity are distinct components of peer relations that exert unique effects on maladjustment, and 3) child-by-environment models that consider mediational processes provide a useful framework for investigating the complex processes linking problematic social behaviour to maladjustment.

However, within each of these studies, one or more of the following limitations exist: 1) specific friendship variables are not considered; 2) within-child effects (i.e., social behaviour, or more specifically social withdrawal) are not included in the models, and/or 3) a unidimensional measure of loneliness is utilized which undermines the unique components of dyadic relationships and the broader peer network. A review of the research has revealed that both friendship and peer acceptance are related constructs, but provide unique contexts for socioemotional development. As such, the emerging trend is to consider the unique contribution of these peer contexts.

To address these gaps, while extending the body of knowledge regarding the processes relating maladaptive social behaviour to maladjustment, the present investigation will explore a model proposing that this relationship is mediated by a combination of peer experiences (peer group network and dyadic friendships). However, given the limited empirical evidence upon which to base hypotheses for the relationships between social withdrawal, friendship, and socioemotional adjustment, this investigation is strictly exploratory in nature. Thus, a fully saturated mediational model is proposed (see Figure 1), whereby the socioemotional adjustment associated with socially withdrawn behaviour emerges from numerous direct and indirect influences (see Figure 1). As outlined in the model, both social withdrawal and peer acceptance are posited to have direct and indirect influences on social self-perceptions and loneliness (peer network and dyadic), and the three friendship measures (reciprocity, quality, and satisfaction) are potential mediators of this relationship. Based on previous research, it was anticipated that social withdrawal, poor peer acceptance, and the three friendship measures (reciprocity, quality, and satisfaction) would add cumulatively to the prediction of social self-perceptions and loneliness.

This proposed model is based on the following premises that have been elaborated throughout this chapter. First, children come to the peer group with specific social behavioural tendencies (i.e., social withdrawal), which in turn influence peer acceptance and lead to peer rejection (Boivin & Hymel, 1997; Coie, 1990; Hymel et al., 1990; Younger et al., 1993). Furthermore, this lower peer status in turn affords fewer opportunities for establishing friendships (Bukowski et al., 1996). Second, social withdrawal and peer rejection are both predictive of negative social self-perceptions and feelings of loneliness (Boivin & Hymel, 1997; Boivin et al., 1995; Hymel et al., 1990). Third, consistent with Sullivan's (1953) theoretical underpinnings behind the importance

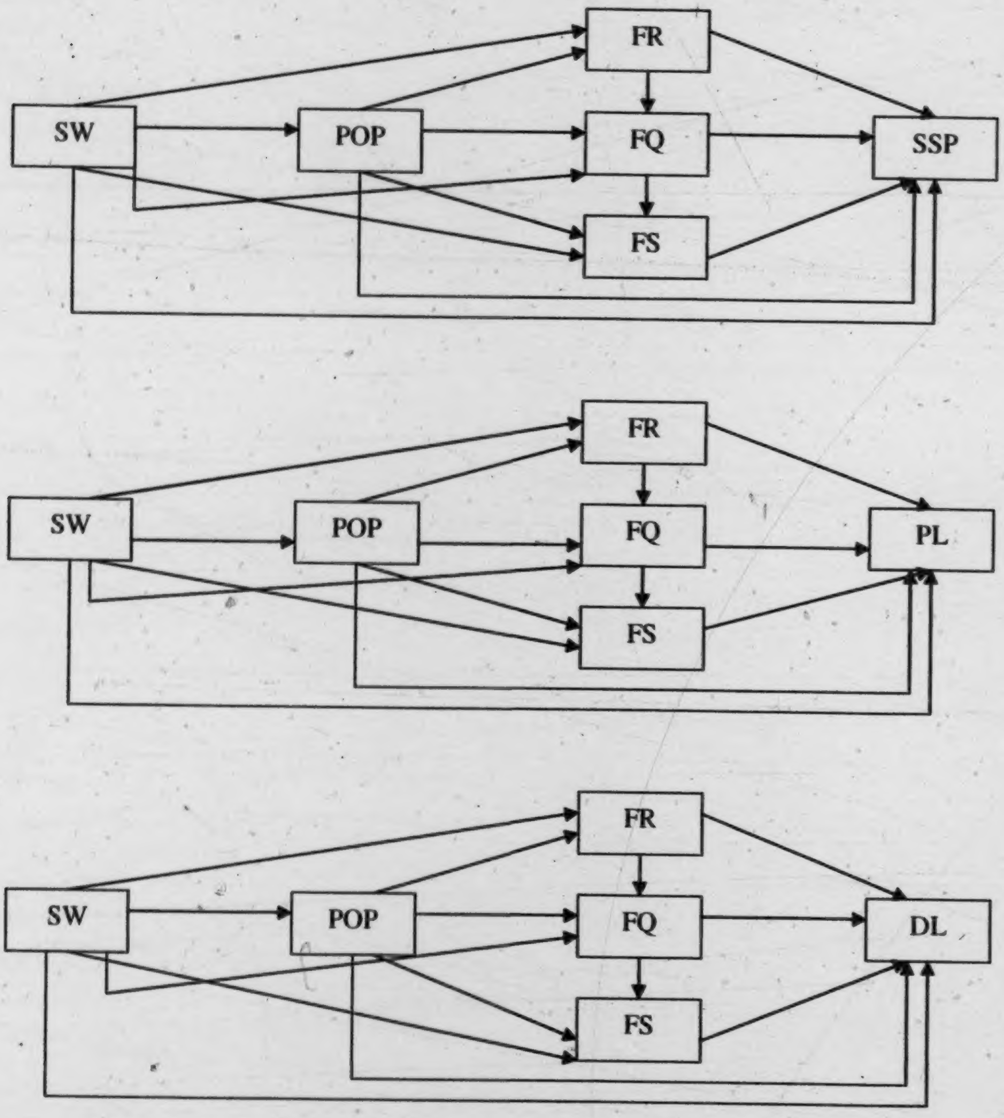

FR
SW
POP
FQ
SSP
FS
FR
SW
POP
FQ
PL
FS
FR
SW
POP
FQ
DL
FS

Figure 1. Proposed mediational models for the three socioemotional adjustment variables: Social self-perceptions (SSP), peer network loneliness (PL), and dyadic loneliness (DL). SW, social withdrawal; POP, peer acceptance; FR, friendship reciprocity; FQ, friendship quality; FS, friendship satisfaction.

of dyadic relationships during preadolescence, both peer acceptance and friendships (i.e., having a friend, friendship quality, and/or number of friends) have important roles in explaining children's psychological adjustment (Asher et al., 1990; Bukowski et al., 1993, 1996; Erdley et a., 2001; Hoza et al., 2000; Parker and Asher, 1993; Renshaw & Brown, 1993).

Summary of the Literature Review

Evidently, theoretical foundations (Mead, 1934; Piaget, 1926, 1932; Sullivan, 1953) and empirical evidence (e.g., Renshaw & Brown, 1993; Rubin & Stewart, 1996; Rubin et al., 1991, 1995a, 1995c) indicate the significance of peer interactions for normal social and emotional development. Furthermore, the significance of, and distinction between peer group networks and dyadic relationships have been identified for their unique functions in socioemotional development (Furman & Robbins, 1985; Hoza et al., 2000; Vandell & Hembree, 1994). It has been suggested that the friendships of children who are rejected by their peers are more problematic and less supportive than those of children who are well-accepted by peers (La Greca & Prinstein, 1999). Research indicates that the simultaneous consideration of peer group acceptance and friendships provides the optimal window to children's feelings about their social lives (Asher et al., 1996).

Theoretical and empirical underpinnings, combined with the robust relationship between maladaptive peer relations and socioemotional maladjustment (Kupersmidt et al., 1990; Hymel et al., 1993a; Rubin et al., 1989a, 1989b, 1991, 1993, 1995b; Parker & Asher, 1987), illustrate the significance of exploring social withdrawal. With respect to socioemotional adjustment, differences between withdrawn children and their average and/or aggressive counterparts have been well-documented, including greater loneliness and more negative self-perceptions of competence across social and non-social domains amongst withdrawn children (e.g., Asendorpf, 1993; Boivin & Begin, 1989; Boivin & Hymel, 1997; Boivin et al., 1994; 1995; Hymel et al., 1990; 1993; 1993; Mott, 2000, unpublished thesis; Rubin et al., 1989; 1991; 1993; 1995). Empirical research also highlights the heterogeneity of social withdrawal and the importance of examining differences between subtypes of withdrawal (e.g., Asendorpf, 1993; Bowker et al., 1998; Hymel et al., 1993a; Rubin & Mills, 1988; Younger & Daniels, 1992).

However, the investigation of the relationship between social withdrawal, socioemotional characteristics, and dyadic friendships has yet to be undertaken. Similarly, the unique contributions of friendship variables to the relationship between social withdrawal and socioemotional adjustment remain unknown. Evidently, much remains to be learned about social withdrawal in order to consolidate the research. As socially withdrawn children represent an "at-risk" group for later maladjustment, further research is necessary to enrich the current understanding of their peer relationships and underlying socioemotional adjustment. Furthermore, stepping beyond the context of the peer group and entering into the realm of closer, more intimate relationships will only help to contextualize the difficulties that are faced by these children.

Limitations of the Research

In this review of the current research related to social withdrawal, three primary limitations are evident. One limitation has been the failure to examine friendships. Both peer group networks and dyadic friendships are the two dimensions of peer relations that are central to socioemotional development, yet studies considering both of these dimensions simultaneously are rare, and an emphasis on the larger peer group network has been prevalent. As a result, the unique contributions and potential mediating effects of friendship variables on the relationship between social withdrawal, social status, and socioemotional adjustment remains unexplored. In addition, the friendship adjustment of socially withdrawn children has not been addressed. A second limitation involves the failure to explore how socioemotional characteristics may be differentially associated with peer networks and dyadic friendships. Specifically, theoretical and empirical evidence supports the existence of two dimensions of loneliness, social and emotional, and these variables have not yet been examined in relation to social withdrawal. The third limitation delineates the paucity of studies that have examined the heterogeneity of social withdrawal. Accordingly, these three limitations direct the current investigation.

Purpose of the Study and Statement of Originality

The primary goals of the present study are: (a) to examine the relationship between social withdrawal, peer acceptance, dyadic friendship adjustment (as measured by friendship reciprocity, friendship quality, and friendship satisfaction), and socioemotional adjustment (as measured by social self-perceptions, peer network loneliness, and dyadic loneliness); and (b) to specifically investigate differences in dyadic friendship adjustment and socioemotional adjustment between socially withdrawn children and their "average" (control) peers. With regards to the former, of particular interest is whether the reciprocity, quality, and satisfaction of children's dyadic friendships add significantly to the prediction of loneliness and negative social self-perceptions after considering levels of socially withdrawn behaviour and peer acceptance, and whether friendship adjustment may mediate the relationship between social withdrawal and socioemotional adjustment. In addressing the latter, gender differences will be considered, as well as differences in levels of socioemotional adjustment, friendship quality, and friendship satisfaction between socially withdrawn children with and without a reciprocated best friend.

Beyond these two primary aims, a preliminary exploration to determine whether the present data supports the construct validity of the two-dimensional nature of social withdrawal will be undertaken, as well as a qualitative examination of the behavioural and socioemotional characteristics of the friends (friendship identity) selected by socially withdrawn children.

The present study extends the current research by providing three substantive changes to the available literature on social withdrawal. First, this study further investigates the processes linking social withdrawal with psychological maladjustment by considering potential contributions of dyadic friendship adjustment variables to socioemotional adjustment, an exploration that has yet to be undertaken. From this perspective, one can explore the potential buffering effects that having a close mutual friend may have on socioemotional adjustment for socially withdrawn children. Second, this study is the first of its nature to provide an exploration of the differences between socially withdrawn children and their "average" peers in three specific features of dyadic friendship adjustment (reciprocity, quality, and satisfaction). In addition, this study qualitatively examines friendship identity (social behavioural and affective characteristics), a variable that has been neglected in the friendship literature and has important implications for understanding friendship and socioemotional adjustment. Third, the unique contributions of peer group status and dyadic friendships to socioemotional adjustment will be considered by investigating the two related but distinct dimensions of loneliness, social loneliness and emotional loneliness. Previous research examining the relationship between social withdrawal and loneliness has failed to distinguish these two dimensions, which may be differentially experienced by socially withdrawn children.

Research Questions and Hypotheses

The Heterogeneity of Social Withdrawal

In order to explore the heterogeneity of social withdrawal, the following preliminary research question examines the construct validity of the proposed two-dimensional subgroup configuration of social withdrawal:

Q1) Does the present research provide empirical support for the construct validity of the passive withdrawal and active isolation subgroups of social withdrawal in middle childhood/preadolescence?

Predicting Measures of Socioemotional Adjustment

Q2 a) Do friendship reciprocity, quality, and satisfaction significantly predict social self-perceptions when the effects of social withdrawal and peer acceptance are controlled for?

b) What is the relationship between social withdrawal, peer acceptance, friendship reciprocity, friendship quality, friendship satisfaction, and social self-perceptions?

Q3 a) Do friendship reciprocity, quality, and satisfaction significantly predict peer network loneliness when the effects of social withdrawal and peer acceptance are controlled for?

b) What is the relationship between social withdrawal, peer acceptance, friendship reciprocity, friendship quality, friendship satisfaction, and peer network loneliness?

Q4 a) Do friendship reciprocity, quality, and satisfaction significantly predict dyadic loneliness when the effects of social withdrawal and peer acceptance are controlled for?

b) What is the relationship between social withdrawal, peer acceptance, friendship reciprocity, friendship quality, friendship satisfaction, and dyadic loneliness?

Given the absence of empirical evidence combining these variables upon which to base hypotheses, and the contradictory findings within this domain of research, these analyses were strictly exploratory in nature. Hence, the fully saturated model (all hypothesized pathways "on") outlined in Figure 1.

Friendship and Socioemotional Adjustment of Socially Withdrawn Children

Q5) Are there group and gender differences in friendship quality between withdrawn and "average" (control) children?

Q6) Are there group and gender differences in friendship satisfaction between withdrawn and "average" (control) children?

Q7) Are there group and gender differences in socioemotional adjustment (as measured by social self-perceptions, peer network loneliness, and dyadic loneliness) between withdrawn and "average" (control) children?

Hypothesis: Withdrawn children will report lower levels of friendship quality and friendship satisfaction, more negative social self-perceptions, and higher levels of peer network and dyadic loneliness. Due to the limited and equivocal findings regarding gender, no a priori gender hypotheses were generated.

Q8) Are socially withdrawn children as successful as their average peers in establishing reciprocated best-friendships? More specifically, what proportion of socially withdrawn children has a reciprocated best friendship?

Hypothesis: Withdrawn children will be less successful than their peers in establishing reciprocal best friendships.

Q9) Are there differences in socioemotional adjustment (as measured by social self-perceptions, peer network loneliness, and dyadic loneliness) between socially withdrawn children with and without a reciprocated best friend?

Q10) Are there differences in friendship quality between socially withdrawn children with and without a reciprocated best friend?

Q11) Are there differences in levels of friendship satisfaction between socially withdrawn children with and without a reciprocated best friend?

Hypothesis: Withdrawn children with a reciprocated best friendship will report more positive social self-perceptions, lower levels of peer network and dyadic loneliness, and higher levels of friendship quality and satisfaction than withdrawn children without a mutual best friend.

Q12) What are the behavioural and socioemotional characteristics (identity) of the friends selected by socially withdrawn children?

CHAPTER THREE: METHOD

The purpose of this chapter is to outline the research design, participants, measures, and administration and statistical procedures that will be used to examine the relationship between social withdrawal, friendship adjustment, and socioemotional adjustment.

Research Design

The present research is based on a correlational design constructed to examine the relationship between social withdrawal, friendship, and socioemotional adjustment in middle childhood/preadolescence (9-12 years). Regression and path analyses will be implemented to investigate the interrelationships between all of these variables. Both one-way (group) and two (group) by two (gender) factorial designs will be utilized to explore differences on selected dependent variables and outcome measures. As all the children fall within the developmental level of preadolescence, developmental influences will not be considered for this study.

Participants

The participants included in this research study were 159 children enrolled in grades four, five and six, from regular schools and classrooms within two school boards in and around a mid-sized Western Canadian city. Of this data set, incomplete data was obtained for one child who was absent for the second day of data collection, and hence, the analyses utilized for this study were derived from a total sample of 158 children. The mean age of these children ranged from approximately 8 years 11 months to 13 years 3 months. Demographic characteristics of the entire sample are presented in Table 2. The sample was almost equally split between grades four, five, and six, and there were slightly more males than females. Table 3 presents the demographic characteristics of the subset of children utilized for the withdrawn and control group comparisons (*n*=43). Within this smaller sample, there were more males (63%) than females (37%) and a higher proportion of grade four students (42%). All children who participated in this study attended regular classrooms within their schools. Beyond the data collection procedures, no personal information was obtained on these children and therefore, the presence of specific disabilities (i.e., learning disabilities, attentional, emotional, and/or behaviour problems) remained unknown.

Students from middle-late childhood/preadolescence (i.e., grades four, five, and six) were used for this study for four reasons. First, it is during these years that children's peers become the primary source of social support. Second, the age range for these grades (middle-late childhood/preadolescence) marks the developmental period identified by Sullivan (1953) where the presence of "chumships" or friendships become more significant and takes precedence over peer acceptance. Third, grades four and five represent the earliest ages for which peer-referenced assessments of acceptance/rejection are reasonably reliable and valid (Younger et al., 1993). Finally, at these ages children associate social withdrawal with peer rejection (Younger & Daniels, 1992) and social comparisons become more prevalent (Rubin et al., 1995a, 1995c).

Selection of Participants

Several steps were undertaken to obtain these participants in accordance with the ethical guidelines for conducting research in schools. First, the research committees for the school boards within a mid-sized Western Canadian city and surrounding areas reviewed and subsequently accepted/rejected the proposal. Two out of five possible

Table 2

Sample Characteristics

	Total Subjects (*N*=158)
Boys	88 (55.7%)
Girls	70 (44.3%)
Mean Age	10.88
Age Range	8:92 –13:25
Grade 4	53 (33.5%)
Boys	31
Girls	22
Mean Age	9.92
Grade 5	51 (32.3%)
Boys	23
Girls	28
Mean Age	10.81
Grade 6	54 (34.2%)
Boys	33
Girls	21
Mean Age	11.90
Number of Participating Schools	3
Number of Participating Classrooms	8

Note. Ages are represented in years and months by converting the number of months to 2 decimal places. For example, 10 years 5 months = 10.00 + 5/12 = 10.42 years.

Table 3

Demographic Information for the Withdrawn and Control Groups

	Withdrawn (*n*=20)	Control (*n*=23)	Total (*n*=43)
Boys	13	14	27
Girls	7	9	16
Mean Age	10.62	10.89	10.77
Age Range	8.92 – 11.92	9.42 – 12.42	8.92 – 12.42
Grade 4	9	9	18
Boys	7	6	13
Girls	2	3	5
Mean Age	9.76	9.90	9.83
Grade 5	6	7	13
Boys	4	3	7
Girls	2	4	6
Mean Age	11.07	10.97	11.02
Grade 6	5	7	12
Boys	2	5	7
Girls	3	2	5
Mean Age	11.63	12.09	11.90

Note. Ages are represented in years and months by converting the number of months to 2 decimal places. For example, 10 years 5 months = 10.00 + 5/12 = 10.42 years.

school boards granted permission for the researcher to contact schools and collect data under approval by individual school administration. For one of these school boards, the researcher presented this project proposal at an administration meeting for all school principals within the district and individuals indicated that they would call the researcher if they were interested. For the second board, the researcher contacted principals by telephone to introduce the study. The researcher met with the interested staff from both school boards in person to discuss details.

Upon consent from both principals and teachers (see Appendices A and B), parent information/consent forms (see Appendix C and D) were sent home with their students. Parents were encouraged to contact the researcher to discuss the information letter that was sent home, and address any questions or concerns that they may have regarding the procedures. A returned consent cut-off rate of 66% for each class was required to ensure majority participation in the assessment procedures. This minimum cut-off criterion was derived specifically for this study so that the information provided by peer assessments would "effectively capture" the social dynamics within the classroom milieu. Participation rates from previous studies using peer assessments have generally been quite high (i.e., > 75% of potential pool, Bowker et al., 1998; >98 % of potential pool, Boivin et al., 1994; Parker & Asher, 1993).

It is important to note that a significantly smaller sample size (N=158) was obtained than was originally proposed for the present study, which significantly impacted subsequent analyses. The primary reason for this became evident during the data collection process and was unavoidable due to circumstances impacting the 2001/2002 academic year in Alberta. Although the amount of time that was allotted for the data collection process was more than adequate, the pending uncertainty regarding an upcoming teacher strike, the duration of the strike itself, and the aftermath of school closure all impacted the willingness for school participation in this research study. Although some principals suggested follow-up calls after things had settled from the strike, due to time issues, they were not interested in taking on any additional involvement at that time. As a result, a limited number of school principals were keen to become involved in this study.

Measures

Peer Assessments (Refer to Table 4)

Sociometric Status and Behaviour Ratings

Sociometric ratings of social status were used to derive popularity indices (measures of peer acceptance) for each child, whereby children rated the degree to which they "like to be with" each of their participating peers (Hymel et al., 1993a, refer to Appendix E, Item 1). Item responses consisted of five choices: YES, yes, sometimes, no, NO, and scores ranged from 1.0 to 5.0, with higher scores indicative of greater peer acceptance (popularity). Each child also rated their participating peers' behaviours according to seven selected items from the Revised Class Play (RCP, Masten et al., 1985) that have been identified as representative of social withdrawal (passive withdrawal and active isolation, Bowker et al., 1998; Rubin & Mills, 1988; Younger & Daniels, 1992). These items were slightly modified from their original wording to be more appropriate for rating (rather than nomination) procedures and may be found in Appendix E (Items 2-5 represent passive withdrawal, and items 5-8 represent active isolation). Item responses for the behavioural descriptions consisted of five choices: YES, yes, sometimes, no, NO, and scores ranged from 1.0 to 5.0, with higher scores representative of greater social withdrawal.

Psychometric Properties. Sociometric ratings provide a purer form of sociometric assessment (Hymel et al., 1993a, 1993b) and demonstrate greater stability, reliability, and validity than nomination techniques (Landau & Milich, 1990). Hanson et al. (1996) reported stability correlation coefficients for these sociometric rating procedures ranging from .64 to .93 over eight weeks. Reported Cronbach Alpha reliability coefficients for each of the three factors of the RCP are high, ranging from .81 to.95, and test-retest reliability coefficients range from .77 - .87 over 6-month intervals. Both empirical (Bowker et al., 1998; Younger & Daniels, 1992) and conceptual (Rubin & Mills, 1988) support has been demonstrated for the selected items representative of likeability and social withdrawal that were used for this study.

Best Friend Nominations

Nominations of best friends involved a two-step procedure (Parker & Asher, 1993; Poulin & Boivin, 1999). First, children identified their three same-sex "best friends" from a comprehensive list of names of all of their participating classmates. Next, children indicated which of their choices for their three best friends was representative of their "very best friend." Friendship reciprocity was based on whether a child's very best friend nomination also selected them as their "very best friend" or among one of their three best friends. If this criterion was not met, reciprocity by any of the three selected best friends was considered. Friendship reciprocity remained unknown to all children. Friendship reciprocity was represented as a dichotomous variable (1 or 0) representing the presence or absence of a reciprocated best friend, respectively.

Research demonstrates that a large proportion of children have at least one reciprocated friend (78%, Vandell & Hembree, 1994) or "best friend" (80%, Parker & Asher, 1993) within the same classroom. Although this nomination procedure restricts friendship selection to a list of participating classmates, school friendships are the focus of this research, and research has demonstrated that when this restriction is not in place (i.e., children can nominate friends outside of their classroom and/or school), children

Table 4

Summary of Assessment Instruments

Assessment Instrument		Purpose	Sample Items
Peer Assessments	Sociometric Ratings	To determine a child's popularity (peer acceptance) index	"This person I like to be with."
	Social Behaviour Ratings	To determine a child's socially withdrawn behaviour (passive withdrawal and active isolation)	"This person is shy; this person is often left out."
	Friendship Nominations	To determine a child's same-sex reciprocated best friendship(s)	—
Self-Reports	Friendship Quality Questionnaire (FQQ, Parker & Asher, 1993)	To determine a child's perception of the features of their best friendship	"Talk about the things that make us sad"; "make up easily when we have a fight"; "Cares about my feelings."
	Friendship Satisfaction Rating (Parker & Asher, 1993)	To determine a child's perceived level of satisfaction with their best friendship	"How is this friendship going?; How happy are you with this friendship?"
	Peer Network and Dyadic Loneliness Questionnaire (PNDLQ, Hoza et al., 2000)	To determine a child's feelings of social and emotional loneliness; the subscales on this questionnaire (Peer Network Loneliness and Dyadic Loneliness) were two of the three measures used to assess socioemotional adjustment	"Some kids feel lonely a lot because they wish other kids included them in more things; other kids don't feel lonely very much because they think other kids usually do include them in things" "Some kids hardly ever feel lonely because they have a best friend; other kids wish they had a best friend so they wouldn't feel so lonely."
	Social Acceptance Subscale of the Harter's (1985) Self-Perception Profile for Children (SPPC)	To determine a child's self-perceptions of social competence; one of the three measures used to assess socioemotional adjustment	"Some kids are popular with others their age; other kids are not very popular."

across various peer acceptance groups do not differ in the number of nonclassmates nominated as friends, and a mean of 0.90 nonclassmates are selected as friends (Parker & Asher, 1989, in Parker & Asher, 1993).

Self-Reports (Refer to Table 4)

Friendship Quality Questionnaire (Parker & Asher, 1993)

This 40-item questionnaire provides indices of children's (middle-late elementary years) perceptions of the quality of their friendships on six dimensions: (1) Validation and Caring, (2) Conflict Resolution, (3) Conflict and Betrayal, (4) Help and Guidance, (5) Companionship and Recreation, and (6) Intimate Exchange. Children rated their friendship with a specific friend (identified previously by best friend nominations) on a five-point scale for each item, indicating how much they believe a specific friendship quality characterized their friendship. Responses ranged from: (0) not at all, to (1) a little true, to (2) sometimes true, to (3) pretty true, and (4) really true. Children responded to this questionnaire with reference to a specific friend in mind (the name was typed at the top of the page) so that their responses were less likely to reflect qualities of an "idealized" friend or a combination of friendships (Parker & Asher, 1993). For those children who did not have a mutual best friend (as determined by the researcher and unknown to the child), the questionnaire was completed with reference to the best friend that they identified in the nomination procedure. This avoided drawing attention to individuals with nonreciprocated friendships. Scores on each of these dimensions were combined to form a Total Friendship Quality score to be used in the analyses, where higher scores represented more positive friendship quality features (the one negative dimension-conflict and betrayal- was reverse scored in this process).

Psychometric Properties. This instrument was devised from a pool of items administered to two samples of children from grades three through six. Internal consistency for each dimension was satisfactory, with Cronbach Alpha coefficients ranging from .73 to .90 (Parker & Asher, 1993). Factor loadings for individual items ranged between .55 and .88. Stability coefficients were high over a two-week period (*M* r = .75). A principal components factor analysis revealed six oblique factors very similar to the six scales accounting for 58% of the variance. Poulin and Boivin (1999) also utilized this scale and demonstrated Cronbach Alphas ranging from .76 to .92 for the six scales. In addition, this instrument (or a modified version) has been used by other researchers and viewed favourably in terms of its psychometric properties (e.g., Erdley et al., 2001; Fordham & Stevenson-Hinde, 1999; Heiman, 2000).

Friendship Satisfaction (Parker & Asher, 1993)

Simultaneous with the development of the *Friendship Quality Questionnaire*, these researchers proposed two questions to address the level of friendship satisfaction perceived by children: "How is this friendship going?" and "How happy are you with this friendship?" However, for the purpose of this study and to keep more consistent with the other measures, instead of using a 15-point continuum marked pictorially by happy and sad faces, children rated their friendship satisfaction on a five-point continuum with verbal descriptors, where (1) represented "terrible" and "not happy at all" and (5) represented "excellent" and "very happy". Higher scores were indicative of greater satisfaction. Although no studies to date have utilized verbal descriptors to replace pictoral facial expressions representing varying levels of satisfaction, the use of a shortened five-point continuum has been implemented (Poulin & Boivin, 1999).

Psychometric Properties. The psychometric data available for this variable are minimal. Parker and Asher (1993) found children's responses to these two questions were highly correlated ($r = .85$) and the average rating between the two questions represented the satisfaction score, with higher scores indicating greater satisfaction. Similar measures of friendship satisfaction utilizing these two questions and an additional question have been utilized in two other studies with comparable alpha levels (Dishion, Andrews, & Crosby, 1995; Poulin & Boivin, 1999).

Peer Network and Dyadic Loneliness Scale (PNDLS, Hoza, et al., 2000)

This 16-item questionnaire provides indices of children's feelings of social (peer network) and emotional (dyadic) loneliness. The first eight items measure peer network loneliness, while the last eight items measure dyadic loneliness. Each item contained two statements that were opposite in content, and there were two response choices for each statement: "really true for me" or "sort of true for me". A response was required for only one of the statements for each item and item scores ranged from 1.0 to 4.0. Higher scores were indicative of greater social or emotional loneliness. These two subscales were used separately for the analyses.

Psychometric Properties. This instrument was devised based on theoretical evidence for two dimensions of loneliness: social and emotional. These subscales demonstrate satisfactory internal consistency, with coefficient Alphas ranging from .84 to .88 for the Dyadic and Peer Network subscales, respectively (Hoza et al., 2000). In addition, support for the convergent and discriminant validity of these two subscales with the Asher et al. (1984) loneliness scale, the *Friendship Qualities Scale* (Bukowski et al., 1994a), sociometric ratings, and friendship nominations, has been documented (Hoza et al., 2000). No known research to date has utilized this scale.

Self-Perception Profile for Children (Harter, 1985)

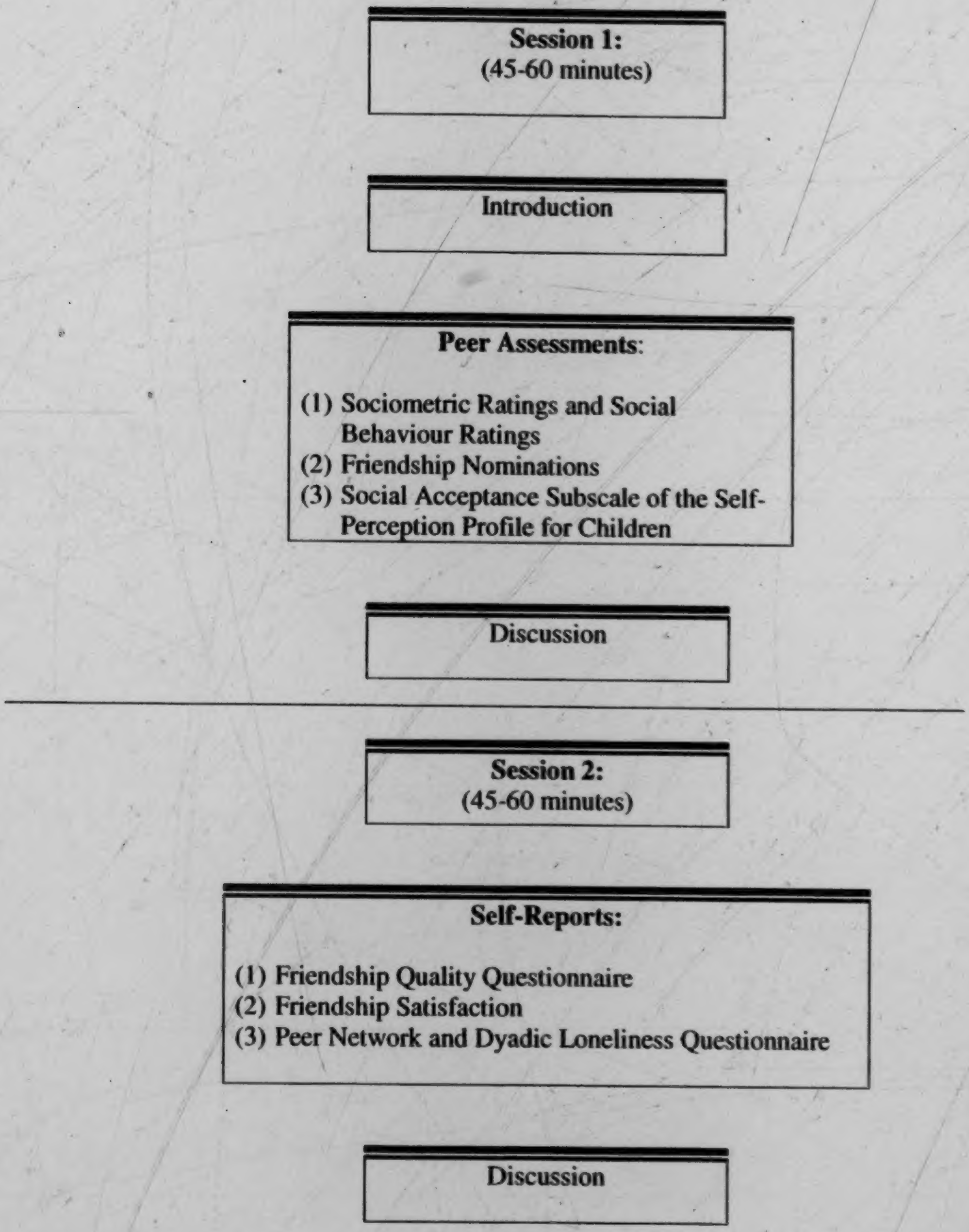
This 36-item self-report profile provides indices of children's self-perceptions of competence across five domains: cognitive/academic, social, physical, behavioural conduct, and general self-worth. For the purpose of this study, and due to time constraints, only the Social Acceptance subscale was used, for a total of six items that tap self-perceptions of social competence. Each item contained two statements that were opposite in content. There were two response choices for each statement: "really true for me" or "sort of true for me". A response was required for only one of the statements for each item and item scores ranged from 1.0 to 4.0. Higher scores typically represent more positive social self-perceptions. However, this scale was reverse-scored to be consistent with the other socioemotional adjustment measures used in this study, and higher scores represented more negative social self-perceptions.

Psychometric Properties. Empirical research supports the sound validity and reliability of this instrument (Harter, 1985; Harter, 1990). Evidence for the content validity for the Social Acceptance subscale has been demonstrated by factor loadings ranging from .41 to .78. Reported internal consistencies for this scale are adequate, with Cronbach Alpha coefficients ranging from .75 to .80 (Harter, 1985). The use of the Social Acceptance subscale in isolation to represent social self-perceptions has been implemented in previous research (e.g, Rubin et al., 1988, 1989b).

Procedure

All testing procedures involved group administration and required two separate testing sessions, each of approximately 45-60 minutes in duration, for a total classroom time of 90-120 minutes (See Figure 2). During the first of these testing sessions, the study was introduced to the children. The researcher discussed with the children the issues of confidentiality, individual differences in feelings and number of friends, and the importance of respecting others' feelings/opinions. Individual cardboard shields were handed out and placed on each child's desk to emphasize the importance of privacy and confidentiality.

After this introduction, children were required to complete booklets containing the sociometric and social behaviour assessment questionnaires, best friend nominations, and social acceptance questionnaire. First, in accordance with procedures outlined by Singleton and Asher (1977) and Hymel et al. (1993a), children rated participating classmates according to how much "they like to be with" each peer and "what they are like", based on social behaviour descriptions, to determine peer acceptance (popularity) levels and behaviour indices of social withdrawal. The booklets they received contained separate pages for all of the participating children, with individual names typewritten at the top of each page. However, only the average of all ratings from same-sex peers on the items comprising the appropriate composites was used, as research demonstrates that same-sex ratings are more stable (Durrant & Henggeler, 1986) and strong sex-biases exist at these ages (i.e., children are more likely to rate the opposite sex less favourably, Asher & Dodge, 1986). Scores were standardized by converting to z-scores (*M* = 0.0, *SD* = 1.0) within gender and classroom groups and these standardized scores were used to identify the two target groups of socially withdrawn and control children. Scores were standardized within each classroom to account for social status and behavioural differences (i.e., classroom social dynamics) so that appropriate comparisons could be



Session 1:
(45-60 minutes)

Introduction

Peer Assessments:

(1) Sociometric Ratings and Social Behaviour Ratings
(2) Friendship Nominations
(3) Social Acceptance Subscale of the Self-Perception Profile for Children

Discussion

Session 2:
(45-60 minutes)

Self-Reports:

(1) Friendship Quality Questionnaire
(2) Friendship Satisfaction
(3) Peer Network and Dyadic Loneliness Questionnaire

Discussion

Figure 2. Schedule of Testing

made.

Next, children were asked to circle their three best friends from a list of all participating classmates, and subsequently identify their very best friend by placing a number one beside the name. However, they were instructed to select only same-sex friendships. Children were encouraged that it is okay if they have best friends who are not in the class, are not participating, or are of the opposite sex; however, they were to select their closest same-sex friend(s) from the list of participating classmates. Same-sex friendships were utilized as research demonstrates that for these ages, children are friends almost exclusively with same-sex peers (Erwin, 1998; Rose & Asher, 2000).

Finally, the Social Acceptance Subscale from the *Harter Self-Perception Profile for Children* (Harter, 1985) was completed, using a four-point rating scale to rate themselves according to "what they are like".

During the second testing session, children completed booklets containing the remaining three self-report measures. First, each participating child completed the *Friendship Quality Questionnaire* (Parker & Asher, 1993) for their "first choice" (or otherwise reciprocated) best friend using a five point rating scale (not at all true to really true). Names of the reciprocated friend were pre-typed for each question. Subsequently, children answered the two questions pertaining to their satisfaction with this particular friendship using a five-point rating scale. Finally, the *Peer Network and Dyadic Loneliness Scale* was completed. This scale used a four-point rating scale for children to rate statements regarding their peer relations (e.g., really true for me or sort of true for me).

Upon completion of each of these testing sessions, all participating children were involved in a group discussion with the researcher and teacher, reflecting on what the experience was like for them, and focusing on building self-awareness, building positive social environments, and understanding other children's feelings and behaviours. This discussion took place immediately after completion of the questionnaires, within the latter 10-15 minutes of each testing session. Information from these discussions was not documented or used for the analyses.

Identification of Target Groups

The identification of target groups was determined by the results from the peer sociometric ratings and behavioural assessments, upon completion of the data collection procedures. Popularity indices (measures of peer acceptance) were calculated for each child based on the sociometric rating procedures. Average scores, ranging from 1.0 to 5.0, were standardized (converted to z-scores with $M = 0.0$ and $SD = 1.0$) within same gender and classroom groups, where higher scores represented greater popularity or acceptance. Children whose popularity indices met the cut-off criteria of > 0.5 *SD* below the classroom mean comprised the unpopular group. This criterion, consistent with that used by Hymel et al. (1993), was selected for the purpose of maintaining distinct status differences, while at the same time increasing the number of potential children for the screening process.

Subsequently, this group of unpopular children was further subdivided into a withdrawn group based on behavioural measures of social withdrawal. A composite social withdrawal score was derived utilizing the seven items reflective of passive withdrawal and/or active isolation, as outlined by previous researchers (e.g., Bowker et al., 1998; Rubin & Mills, 1988; Rubin et al., 1995a; Younger & Daniels, 1992): "this person is shy", " this person plays alone rather than with others", "this person is usually sad", "this person's feelings get hurt easily", "this person can't get others to listen", "this person has trouble making friends", and "this person is often left out". Scores were standardized (converted to z-scores, *M* = 0.0, *SD* = 1.0) within same gender and classroom groups and higher scores were indicative of greater social withdrawal. Unpopular children who scored > 0.5 *SD* above the mean on a social withdrawal composite were identified as socially withdrawn. A control group of "average" children was identified whose popularity and social withdrawal indices fell within +/- 0.5 *SD* of the mean.

Statistical Analyses

To address the first research question, a principal components factor analysis was conducted on the entire sample for the peer behavioural ratings to investigate the construct validity of the passive withdrawal and active isolation subgroups of social withdrawal. To investigate Questions 2a), 3a), and 4a), hierarchical regression analyses were conducted using the complete sample for each of the three socioemotional adjustment variables (social self-perceptions, peer network loneliness, dyadic loneliness). Gender, social withdrawal, popularity, friendship reciprocity, friendship quality, and friendship satisfaction were entered as predictors. Exploratory path analysis (structural equation modeling) with the entire sample was utilized for Questions 2b), 3b), and 4b) to provide a more comprehensive investigation of the pattern of interrelationships between social withdrawal, peer acceptance, friendship reciprocity, friendship quality, friendship satisfaction, social self-perceptions, peer network loneliness, and dyadic loneliness, as well as to examine the potential mediating effects of specific variables. Path analysis is the simplest form of structural equation modeling, whereby all variables considered are measured variables (Keith, 1999). Structural equation modeling was the method of choice over other analysis techniques as it permits the examination of the effects of numerous predictors on outcome measures, simultaneously, while at the same time taking into account the interrelations among the predictors (Nangle et al., 2003; Biddle & Marlin, 1987).

For the remaining research questions, smaller sample subsets of withdrawn and control (*n*=43) or withdrawn (*n*=20) children were utilized. To address Questions 5) and 6), two separate two-way (group X gender) ANOVAs were conducted on the dependent variables of friendship quality and friendship satisfaction. For Question 7), a two-way (group X gender) MANOVA was implemented, whereby the three separate measures of socioemotional adjustment were the dependent variables. The independent variable of group had two levels: withdrawn and control. Similar analyses, utilizing the smaller data subset, were conducted to address Questions 9), 10), and 11). However, for these latter analyses, there was only one independent variable (group) with two levels (withdrawn with reciprocated best friend and withdrawn without reciprocated best friend).

A Chi-Square Goodness-of-Fit analysis was implemented to address Question 8), which examined group differences in reciprocated friendship. Finally, descriptive statistics were utilized to qualitatively describe the characteristics of children and their friends (Question 12).

CHAPTER FOUR: RESULTS

This chapter is organized into sections according to the research questions proposed. Initially, the descriptive statistics and preliminary analyses conducted on the variables included in this study are presented. Subsequently, the results from a factor analysis addressing the heterogeneity of social withdrawal are reported. This investigation was strictly exploratory in nature due to the small sample size (Tabachnick & Fidell, 1996). The next section addresses research questions 2), 3), and 4) associated with predicting socioemotional adjustment, and results from complimentary hierarchical regression and path analyses are reported. The remaining section addresses research questions 5) through 12), which specifically examine the friendship and socioemotional adjustment of socially withdrawn children. Results from ANOVAs, MANOVAs, and a Chi Square analysis, as well as qualitative findings, are presented.

All data analyses utilized the statistical software program SPSS 12.0 or LISREL 8.54 and were based on the standard alpha level of .05.

Descriptive Statistics

Reliability data were collected on all of the variables (with the exception of peer acceptance, as this score was based on the score from a single item) for both the complete data set (*N*=158), as well as a smaller subset of the data (*n*=43). Tables 5 and 6 present the means, standard deviations, minimum and maximum scores, standard errors of the means, and Cronbach Alpha's for the respective variables. As can be seen from the reliability data, internal consistencies for each of the variables utilized in the present study are relatively high. The lower reliabilities for two of the measures, friendship satisfaction and social self-perceptions, may reflect the fewer number of items

Table 5

Means, Standard Deviations, Standard Error of the Mean, and Reliabilities for the Dependent Variables for Complete Data Set (N=158)

Variable	*M*	*SD*	Minimum	Maximum	Standard Error of the Mean	Cronbach's Alpha	Number of Items
SW*	0.01	0.95	-1.85	2.56	0.08	0.91	7
FQ^a	2.60	0.67	0.00	4.00	0.05	0.92	40
FS^a	4.54	0.63	1.00	5.00	0.05	0.78	2
SSP^b	2.11	0.71	1.00	4.00	0.06	0.77	6
PNL^a	1.86	0.67	1.00	4.00	0.05	0.87	8
DL^a	1.69	0.64	1.00	4.00	0.05	0.86	8

Note. FQ, Friendship Quality; FS, Friendship Satisfaction; SSP, Social Self-Perceptions; PNL, Peer Network (Social) Loneliness; DL, Dyadic (Emotional) Loneliness.

* These scores have been standardized

[a] Higher scores reflect higher levels of the variable being studied

[b] Higher scores represent more negative social self-perceptions

comprising their scales, two and six items, respectively.

In accordance with procedures outlined in the previous section for subgroup configuration, out of the total sample of 158 students, 20 children were identified as withdrawn and 23 were identified as a "control" group. Table 7 presents the means and standard deviations for the two groups on the defining criteria. A scatterplot of the group distributions based on the defining criteria is presented in Figure 3, demonstrating the distinction between these two groups.

Table 6

Means, Standard Deviations, Standard Error of the Mean, and Reliabilities for the Dependent Variables for the Sample Subset (n=43)

Variable	*M*	*SD*	Minimum	Maximum	Standard Error of the Mean	Cronbach's Alpha	Number of Items
SW*	0.70	0.90	-0.50	2.40	0.14	0.88	7
FQ[a]	2.56	0.72	0.00	4.00	0.11	0.92	40
FS[a]	4.62	0.59	1.00	5.00	0.09	0.74	2
SSP[b]	2.27	0.72	1.00	4.00	0.11	0.74	6
PNL[a]	1.94	0.68	1.00	4.00	0.10	0.86	8
DL[a]	1.76	0.59	1.00	4.00	0.09	0.80	8

Note. FQ, Friendship Quality; FS, Friendship Satisfaction; SSP, Social Self-Perceptions; PNL, Peer Network (Social) Loneliness; DL, Dyadic (Emotional) Loneliness.

* These scores have been standardized

[a] Higher scores reflect higher levels of the variable being studied

[b] Higher scores represent more negative social self-perceptions

Table 7

Means and Standard Deviations for the Withdrawn and Control Groups on the Defining Criteria

Criteria	Withdrawn (*n*=20)	Control (*n*=23)
POP		
M	-1.52	0.09
SD	.56	.29
SW		
M	1.53	-0.02
SD	.56	.33

Note. POP, peer-assessed popularity/peer acceptance; SW, peer-assessed social withdrawal

All scores are standardized (i.e., converted to z-scores, (*M*) = 0.0, standard deviation (*SD*) = 1.0).

Preliminary Analyses

Pearson product moment correlations between all of the variables used in this study are presented in Table 8. As there was a strong correlation between the two friendship satisfaction variables, $r = .65, p < .01$, the average score of these two variables was used to represent friendship satisfaction.

Significant positive correlations were found amongst all three of the socioemotional adjustment variables. In particular, social self-perceptions and perceived social loneliness, two variables associated with the larger peer group network, were highly correlated. Consistent with previous research (Asher et al., 1990), peer acceptance was significantly and negatively correlated with feelings of loneliness and negative social self-perceptions. Similarly, social withdrawal was significantly and positively correlated with social loneliness and negative social self-perceptions, but the correlation between social withdrawal and emotional loneliness, although positive, was nonsignificant. These significant correlations are consistent with earlier research (Boivin et al., 1989, 1994,

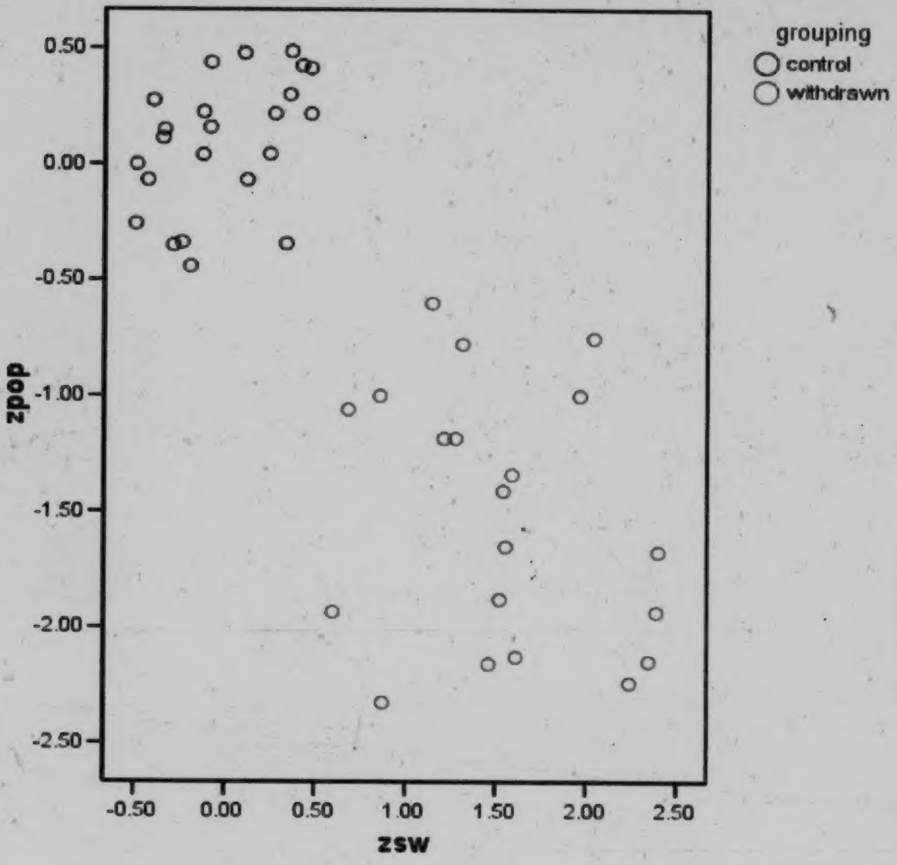


Figure 3. Peer-assessed acceptance (zpop) and social withdrawal (zsw) scores for the two target groups.

Table 8

Correlations among the Predictor and Dependent Variables for the entire sample (N=158).

	SW	POP	FQ	FS	FR	SSP	PNL	DL
SW	1							
POP	-.42**	1						
FQ	-.04	.25**	1					
FS	-.04	.18*	.54**	1				
FR	-.45**	.62**	.30**	.10	1			
SSP	.34**	-.19*	-.14	-.17*	-.12	1		
PNL	.22**	-.20*	-.16*	-.30**	-.15	.72**	1	
DL	.15	-.19*	-.40**	-.37**	-.22**	.40**	.58**	1

Note. SW, peer-assessed social withdrawal; POP, peer-assessed popularity/peer acceptance; FQ, friendship quality; FS, friendship satisfaction; FR, friendship reciprocity; SSP, social self-perceptions; PNL, peer network (social) loneliness; DL, dyadic (emotional) loneliness.

*$p < .05$, ** $p < .01$.

1995; Hymel et al., 1993a; Rubin et al., 1988, 1989b, 1991; Rubin & Mills, 1988). However, unlike the present research, the measures of loneliness in these previous studies did not distinguish between the two types of loneliness.

With regards to the friendship variables, friendship reciprocity was positively correlated with popularity and negatively related to social withdrawal. The relationship between having a mutual friendship and perceived friendship quality was also significant and positive. A significant positive correlation was found between friendship quality and friendship satisfaction, as was also documented by Parker and Asher (1993).

Interestingly, all three friendship variables were significantly and negatively correlated with emotional loneliness, while their correlations with social loneliness, although still negative, were not all significant or as strong. In particular, having a reciprocated best friend was not significantly related to the peer network variables of social loneliness or social self-perceptions. In addition, the correlation between friendship quality and social self-perceptions was nonsignificant. Surprisingly, friendship satisfaction was significantly correlated with all socioemotional adjustment variables, even those beyond the friendship dyad. Social self-perceptions were more strongly correlated with peer acceptance than with the friendship variables. However, the same hypothesized pattern did not hold true for peer network loneliness. Specifically, peer network loneliness was more strongly correlated with friendship satisfaction than with peer acceptance. Regardless, the overall pattern of correlations found provides some preliminary support for the notion that the two components of social and emotional loneliness are distinct yet interrelated constructs.

Pearson product moment correlations were also conducted on the dependent variables to be used in the latter analyses of variance involving the sample subset (*n*=43) of withdrawn and control groups. These correlations can be found in Table 9. Moderate correlations were found amongst the socioemotional adjustment variables, warranting the use of Multiple Analysis of Variance. Again, a significant positive relationship was found between friendship quality and friendship satisfaction, and all socioemotional variables were significantly and negatively correlated with friendship satisfaction. However, inconsistent with expectations, the correlation between friendship quality and dyadic loneliness was nonsignificant, suggesting that for this subgoup of children, perceived

Table 9

Correlations among the Dependent Variables for the Sample Subset (n=43).

	FQ	FS	SSP	PNL	DL
FQ	1				
FS	.45**	1			
SSP	-.13	-.34*	1		
PNL	-.06	-.41**	.70**	1	
DL	-.27	-.49**	.42**	.65**	1

Note. FQ, friendship quality; FS, friendship satisfaction; FR, friendship reciprocity; SSP, social self-perceptions; PNL, peer network (social) loneliness; DL, dyadic (emotional) loneliness.

$^*p < .05$, $^{**}p < .01$.

friendship quality had minimal influence on the degree of dyadic loneliness experienced.

Research Questions and Analyses

The Heterogeneity of Social Withdrawal

Q1) Does the present research provide empirical support for the construct validity of the passive withdrawal and active isolation subgroups of social withdrawal in middle childhood/preadolescence?

The correlations among the seven items used to assess passive social withdrawal and active isolation social withdrawal are reported in Table 10. As shown, the values were, with perhaps the one exception of $r_{PW_1AI_3}$, moderate to moderately high. A principal components extraction of this matrix yielded one common factor accounting for 69.0% of the total variance (one component with an eigenvalue greater than or equal to one, Guttman, 1954). The pattern coefficients for this factor ranged between .59 and .92 (see Table 11). Thus, the data did not support the configuration of passive

Table 10

Correlations among Peer-Assessments of Passive Withdrawal and Active Isolation subgroups of social withdrawal

	PW1	PW2	PW3	PW4/ AI4	AI1	AI2	AI3
PW1	1						
PW2	.44**	1					
PW3	.54**	.52**	1				
PW4 /AI4	.56**	.71**	.77**	1			
AI1	.40**	.79**	.68**	.80**	1		
AI2	.44**	.72**	.59**	.69**	.73**	1	
AI3	.26**	.72**	.60**	.72**	.84**	.67**	1

Note. PW, peer-assessed passive withdrawal; AI, peer-assessed active isolation.

** $p < .001$.

withdrawal and active isolation subgroups of social withdrawal within the middle-late childhood/preadolescent sample in the present study. Consequently, the items were treated as one set that measured social withdrawal.

Predicting Measures of Socioemotional Adjustment

To answer the research questions in this section pertaining to the prediction of socioemotional adjustment, two complimentary analyses were conducted. First, separate hierarchical multiple regression analyses were performed on each of the three socioemotional adjustment variables: social self-perceptions, peer network loneliness, and dyadic loneliness. Social withdrawal, peer acceptance, friendship reciprocity,

Table 11

Factor Loadings of the Social Withdrawal Items from Principal Component Analyses for the Entire Sample

Item	Factor 1
PW1	.59
PW2	.85
PW3	.81
PW4/AI4	.91
AI1	.92
AI2	.84
AI3	.85

Note. PW, peer-assessed passive withdrawal; AI, peer-assessed active isolation.

friendship quality, and friendship satisfaction were used as the predictor variables in these analyses. Second, path analysis techniques (LISREL) were employed for each measure of adjustment to provide a more in-depth examination of the interrelationships amongst all of the variables.

Although LISREL is considered a confirmatory path analysis technique, the present study utilized this statistical method for exploratory purposes only. In so doing, all potential pathways were open and hypothesized to be significant for each model (fully saturated model). The reason for the exploratory nature of this investigation is that there exists no previous research that has considered the potential interrelationships amongst this combination of variables. Thus, it was hoped that the results from this exploratory path analysis would provide a framework from which to begin future research applying confirmatory path analysis techniques to the predictor variables demonstrating significant paths.

In consideration of the limited and inconsistent findings in the literature, gender was used as a covariate in each of the hierarchical regression analyses to covary out any potential gender differences. Separate regression analyses were run without using gender as a covariate to see if this had any impact on the results; however, as the results were highly consistent for each of the dependent variables, only those results that included gender as a covariate are reported. Similarly, to control for any potential gender differences in the path analyses, the partial correlation matrix for the variables was inputted.

Social Self-Perceptions

Q2a) Do friendship reciprocity, quality, and satisfaction significantly predict social self-perceptions when the effects of social withdrawal and peer acceptance are controlled for?

Prior to discussing the results of the hierarchical regression analyses, the assumptions underlying this statistical procedure must be assessed for violations with reference to the current data set. Regression analyses are based on the following assumptions regarding the residuals (differences between obtained and predicted dependent variable [DV] scores): there is a linear relationship between residuals and predicted DV scores (assumption of linearity); the residuals are normally distributed (assumption of normality); the variance of residuals is the same for all predicted scores (assumption of homoscedasticity); and the errors of prediction are independent (assumption of independence). With regards to the assumption of independence, as the data collection procedures (as outlined in Appendices J & L) encouraged and enforced the confidentiality of self-reports, it appears highly unlikely that the responses of individuals were interdependent.

According to Tabachnick and Fidell (1996), the first three assumptions are met if the scatterplot of predicted values of the dependent variable against the residuals reveals a "nearly rectangular" distribution, with scores more heavily concentrated around the center. Consideration of outliers and multicollinearity is also important. Tabachnick and Fidell (1996) define outliers as those cases whose standardized residuals exceed +/- 3.3 standard deviations. No extreme scores were noted in the distributions of scores for the variable of social self-perceptions. An examination of the correlations between predictor variables (see Table 8) revealed primarily low to moderate correlations among the predictors, suggesting that there was no multicollinearity. Figure 4 presents the scatterplot of standardized residuals and predicted scores for the first dependent variable: social self-perceptions. As can be seen from the scatterplot, the regression assumptions appear to be met.

Hierarchical analyses and results. The results from the hierarchical regression analyses for social self-perceptions are presented in Table 12. Withdrawal and peer acceptance, along with gender as a covariate, were entered as the first set of predictors as research and theory support their strength in predicting social self-perceptions. The three friendship variables were then entered together as the second set of predictors, to determine if measures of friendship adjustment add significantly to the prediction of social self-perceptions, and whether the friendship variables have unique contributions (above and beyond the social behaviour and sociometric variables) in predicting social

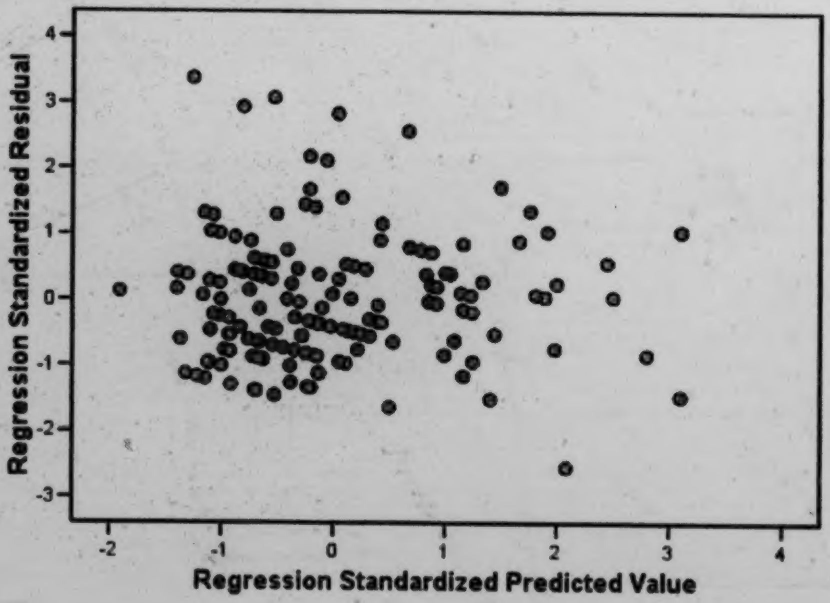


Figure 4. Scatterplot of standardized residuals and standardized predicted values for social self-perceptions.

CANADIAN THESIS
THESES CANADIENNES

MOTT, ANDREA LOUISE
THE RELATIONSHIP BETWEEN
SOCIAL WITHDRAWAL, FRIENDSHIP, ...

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Table 12

Hierarchical Regression of Predictor Variables on Social Self-perceptions

Model	Predictors	R^2	R^2 Change	β	*F* Change	*p*
1		.12	.12		7.14	.00
	Sex			-.04		
	Withdrawal			.32**		
	Peer acceptance			-.05		
2		.15	.03		1.86	.14
	Sex			-.05		
	Withdrawal			.36**		
	Peer Acceptance			-.06		
	Friend Reciprocity			.11		
	Friend Quality			-.10		
	Friend Satisfaction			-.09		

** $p < .001$

self-perceptions. While the first model accounted for 12.2 % of the total variance in social self-perceptions ($R^2 = .12, p < .05$), the addition of the friendship variables only accounted for an additional 3.1% of the variance ($R^2 = .15, p = .14$), resulting in no significant increment in R^2. As can be seen from the regression, when all variables were included as predictors, only one variable, social withdrawal (β = .36), significantly predicted negative social self-perceptions; none of the proposed friendship variables were significant predictors.

Q2b) What is the relationship between social withdrawal, peer acceptance, friendship reciprocity, friendship quality, friendship satisfaction, and social self-perceptions?

Beyond the assumptions previously noted that must be met for hierarchical regression, an additional data screening procedure relevant for structural equation modeling was conducted, which involves a visual inspection of the QPLOT of partially standardized residuals for the dependent variable of social self-perceptions. This QPLOT revealed that the slope of the fitted line deviates only slightly from 1, and the standardized residuals (+/- 1.35) do not exceed the cutoff criterion of +/- 3.0 (Tabachnick & Fidell, 1996), suggesting that the residuals are moderately normally distributed.

The path coefficients in the proposed saturated model for social self-perceptions were estimated using maximum likelihood estimation. Three fit indices were utilized to assess the fit of the model: goodness of fit (GFI), adjusted goodness of fit (AGFI), and standardized root mean square residual (SRMR). According to Tabachnick and Fidell (1996), large values for GFI and AGFI (close to 1) and small values for SRMR (< 0.05) are desirable. Similarly, Joreskog and Sorbom (1993) suggest target GFI values ≥ 0.95 and AGFI values ≥ 0.90.

Very strong support was found for the overall fit of this model to the data. The goodness of fit (GFI) and adjusted goodness of fit (AGFI) indices were 0.996 and 0.919, respectively. In addition, the standardized root mean square residual (SRMR) was very small, 0.014, confirming the fit of the model. However, as revealed in Figure 5, several of the pathways in the saturated model were not significant.

It is evident from Figure 5 that social withdrawal (SW) has a significant direct positive effect on the level of social self-perceptions (SSP, note that for this variable higher scores reflect more negative social self-perceptions). This causal influence is consistent with the hypothesized effect that higher levels of socially withdrawn behaviour

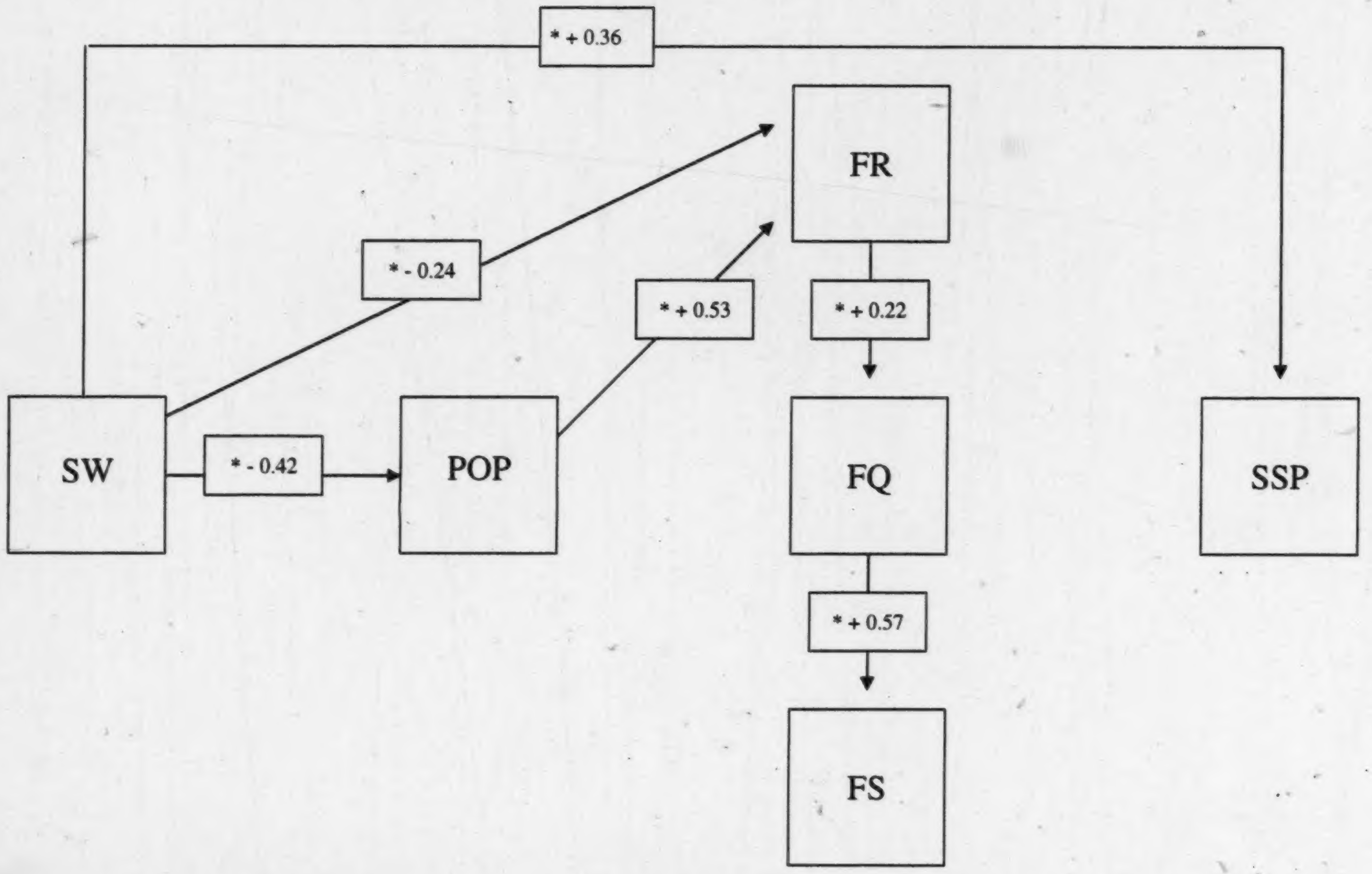
* + 0.36
FR
* - 0.24
* + 0.53
* + 0.22
SW
* - 0.42
POP
FQ
SSP
* + 0.57
FS

Figure 5. Estimated path coefficients predicting social self-perceptions.

will lead to more negative social self-perceptions. The figure also reveals that social withdrawal (SW) has a significant direct negative effect on both level of peer acceptance (POP) and friendship reciprocity (FR). That is, consistent with the hypotheses, higher levels of social withdrawal lead to lower levels of peer acceptance, and decrease the likeliness of having a mutual best friend. In addition, this model reveals that peer acceptance serves to partially mediate the relationship between social withdrawal and friendship reciprocity. Contrary to expectations, no direct effects of peer acceptance on social self-perceptions were found. However, a significant positive causal pathway was found between peer acceptance and friendship reciprocity, suggesting that higher levels of peer acceptance lead to increased likeliness of having a mutual best friend.

Amongst the friendship variables, significant positive causal pathways were found in the hypothesized directions: an increased likeliness for friendship reciprocity leads to higher levels of friendship quality (FQ), which in turn directly influences greater friendship satisfaction (FS). However, none of the three friendship variables were found to have direct links to levels of negative social self-perceptions.

As previously noted and inconsistent with the hypotheses, many non-significant paths were found in this model for social self-perceptions. Specifically, both social withdrawal and peer acceptance did not exert any direct effects on the two other friendship variables (FQ and FS). In other words, although the presence of a best friend is dependent on levels of socially withdrawn behaviour and popularity, the quality of and satisfaction with one's friendships are not as strongly related to these social behaviour and peer acceptance variables. The very low correlations found between social withdrawal and both friendship quality and friendship satisfaction (see Table 8) support these findings. Furthermore, no significant relationships were found between popularity and social self-perceptions, suggesting that there is no direct influence of peer acceptance on self-perceptions of social success. The correlation between these two variables was low (see Table 8), albeit significant, but in the context of other variables, the relationship between them is significantly weakened. Finally, there were no significant direct pathways found between the three friendship variables and social self-perceptions, suggesting that one's specific friendship experiences have no causal influences on their more general perceptions of social success. Therefore, inconsistent with hypotheses, these friendship variables fail to mediate the relationship between social withdrawal, peer acceptance, and social self-perceptions.

Peer Network Loneliness

Q3a) Do friendship reciprocity, quality, and satisfaction significantly predict peer network loneliness when the effects of social withdrawal and peer acceptance are controlled for?

Refer to question 2a) for a discussion of regression assumptions. No extreme scores were noted in the distributions of scores for peer network loneliness. Figure 6 presents the scatterplot of standardized residuals and predicted scores for the second dependent variable: peer network loneliness. As can be seen from the scatterplot, the regression assumptions appear to be met.

Hierarchical analyses and results. Table 13 presents the results from the hierarchical regression analyses for peer network (social) loneliness. Consistent with the previous regression analyses, withdrawal and peer acceptance, along with gender, were entered as the first set of predictors, and the three friendship variables were entered as the

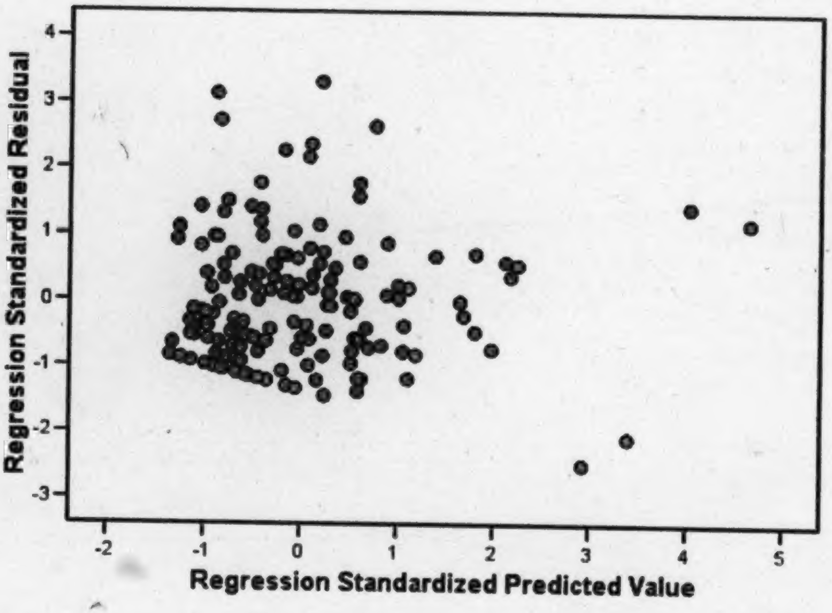

Figure 6. Scatterplot of standardized residuals and standardized predicted values for peer network loneliness.

Table 13

Hierarchical Regression of Predictor Variables on Social Loneliness

Model	Predictors	R^2	R^2 Change	β	F Change	p
1		.06	.06		3.30	.02
	Sex			-.01		
	Withdrawal			.16		
	Peer acceptance			-.13		
2		.14	.07		4.32	.01
	Sex			.02		
	Withdrawal			.17		
	Peer Acceptance			-.08		
	Friend Reciprocity			.00		
	Friend Quality			.03		
	Friend Satisfaction			-.29**		

** $p < .01$

second set of predictors. Gender, social withdrawal, and peer acceptance accounted for 6.0% of the total variance in social loneliness ($R^2 = .06, p < .05$). The inclusion of the friendship variables in the model accounted for an additional 7.4% of the variance, ($R^2 = .14, p < .05$), resulting in a significant increment in R^2. Therefore, more of the variance accounted for in social loneliness was provided by the combination of friendship predictor variables. Interestingly, although the combination of gender, withdrawal, and peer acceptance significantly predicted social loneliness scores, none of these variables individually significantly predicted loneliness scores. When all main predictors were considered, only one variable, friendship satisfaction (β = -.29), significantly predicted feelings of social loneliness.

Q3b) What is the relationship between social withdrawal, peer acceptance, friendship reciprocity, friendship quality, friendship satisfaction, and peer network loneliness?

Similar to previous data screening procedures, the QPLOT of partially standardized residuals for peer network loneliness also revealed that the slope of the fitted line deviates only slightly from 1, and the standardized residuals (+/- 1.35) do not exceed the cutoff criterion of +/- 3.0, suggesting that the residuals are moderately normally distributed.

The path coefficients in the proposed model for peer network loneliness were estimated using maximum likelihood estimation, and the same three fit indices, GFI, AGFI, and standardized RMR were utilized to assess the fit of the model. Very strong support was found for the overall fit of this model to the data. The GFI, AGFI, and standardized RMR were 0.996, 0.919, and 0.015, respectively. However, as revealed in Figure 7, several of the pathways in the saturated model were not significant.

Inconsistent with expectations, yet consistent with the regression analyses, no significant direct relationships were found between social withdrawal or peer acceptance, and peer network loneliness (PL). Rather, social withdrawal and peer acceptance were indirectly related to peer network loneliness via the three friendship variables.

The pathway coefficients between social withdrawal, peer acceptance, and the three friendship variables are consistent with the previous path model for social self-perceptions. Specifically, social withdrawal has a significant direct negative effect on both level of peer acceptance and friendship reciprocity, whereby as predicted, higher levels of social withdrawal lead to lower levels of peer acceptance, and decrease the

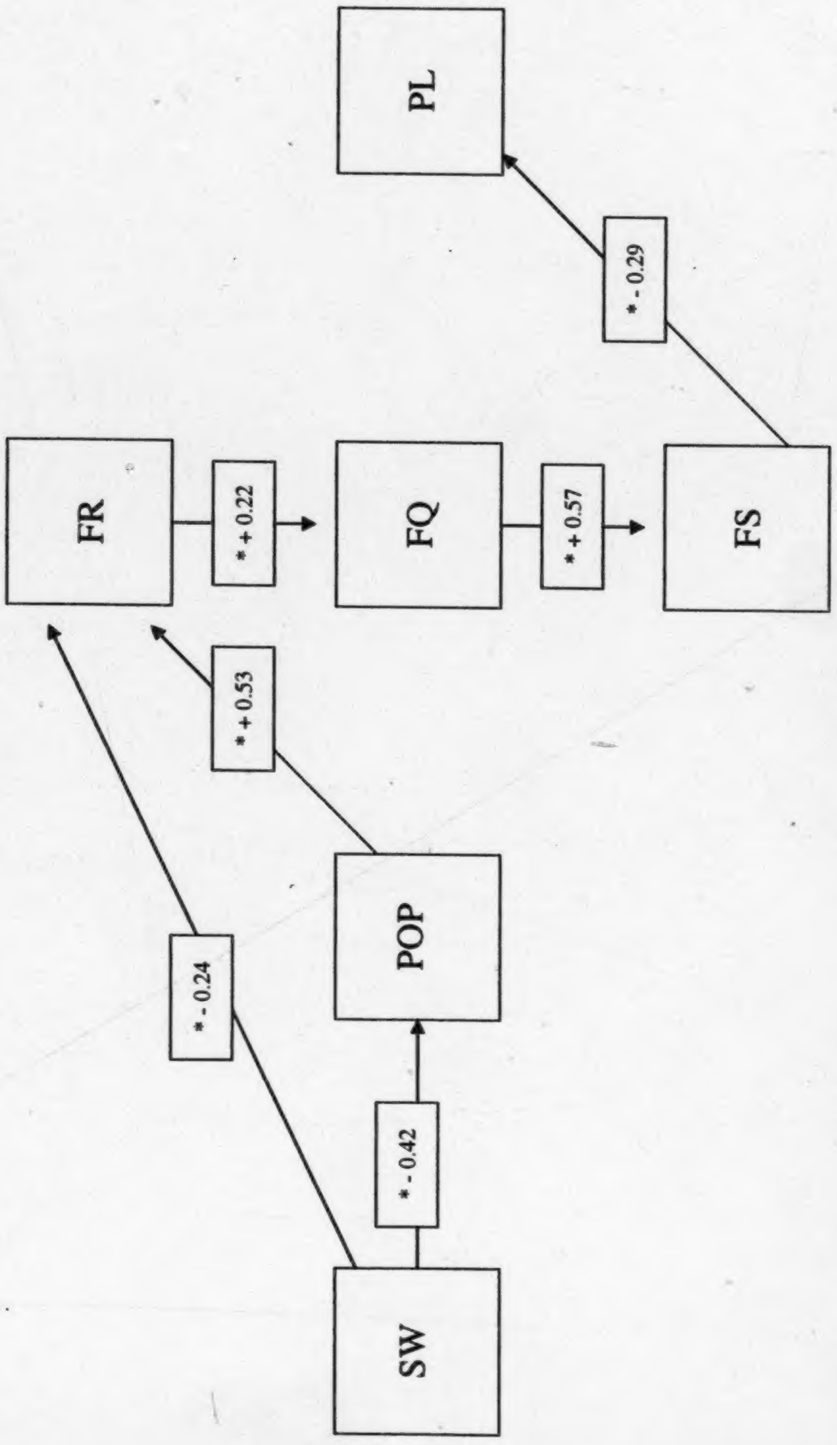
SW
POP
FR
FQ
FS
PL
* - 0.42
* - 0.24
* + 0.53
* + 0.22
* + 0.57
* - 0.29

Figure 7. Estimated path coefficients predicting peer network loneliness.

likeliness of having a mutual best friend. Thus, peer acceptance partially mediates the relationship between social withdrawal and friendship reciprocity. In addition, a significant positive causal pathway was found between peer acceptance and friendship reciprocity, suggesting that higher levels of peer acceptance lead to increased likeliness of having a mutual best friend. Furthermore, as predicted, significant positive causal pathways were found for the friendship variables: an increased likeliness for friendship reciprocity leads to higher levels of friendship quality, which in turn directly influences greater friendship satisfaction.

Only one additional pathway in this proposed model reached significance: friendship satisfaction and peer network loneliness. This direct negative link between these two variables suggests that greater satisfaction with one's best friendship leads to lower levels of social loneliness. However, significant causal relationships between friendship quality or friendship reciprocity, and peer network loneliness were not found.

Overall, these results suggest that the friendship variables mediate the relationship between social withdrawal, peer acceptance, and peer network loneliness. However, it is important to clarify that not all three variables alone are direct mediators in this relationship. Rather, this mediating effect results from a series of direct (as well as indirect) paths between the friendship variables and peer network loneliness: friendship reciprocity directly influences friendship quality, which then has a direct influence on friendship satisfaction, and this in turn leads to peer network loneliness.

Dyadic Loneliness

Q4a) Do friendship reciprocity, quality, and satisfaction significantly predict dyadic loneliness when the effects of social withdrawal and peer acceptance are *controlled for?*

Refer to questions 2a) for a discussion of regression assumptions. No extreme scores were noted in the distributions of scores for dyadic loneliness. Figure 8 presents the scatterplot of standardized residuals and predicted scores for dyadic loneliness. In contrast to the previous dependent variables (social self-perceptions and peer network loneliness), the scatterplot for dyadic loneliness reveals slight violations in the assumptions of normality (more residuals in the center of the plot) and heteroscedasticity (distribution becomes wider at larger predicted values), and a single outlier is present. Therefore, these results should be interpreted with caution.

Hierarchical analyses and results. Once again, withdrawal and peer acceptance, along with gender, were entered as the first set of predictors, and the three friendship variables were entered as the second set of predictors. The hierarchical regression analyses for the variable of dyadic (emotional) loneliness are presented in Table 14. Gender, social withdrawal, and peer acceptance accounted for 5.0% of the total variance in emotional loneliness, $R^2 = .05$, $p < .05$. With the addition of the friendship variables, an additional 16.7% of the total variance in loneliness was accounted for, $R^2 = .22$, $p < .05$, resulting in a significant increment in R^2. Therefore, most of the total variance in emotional loneliness was accounted for by the combination of friendship variables. As in the previous regression analysis, while the combination of gender, social withdrawal and peer acceptance significantly predicted emotional loneliness, each individual variable was not found to be a significant predictor. When all predictors were entered into the equation, both friendship quality ($\beta = -.24$) and friendship satisfaction ($\beta = -.23$) were found to significantly predict emotional loneliness.

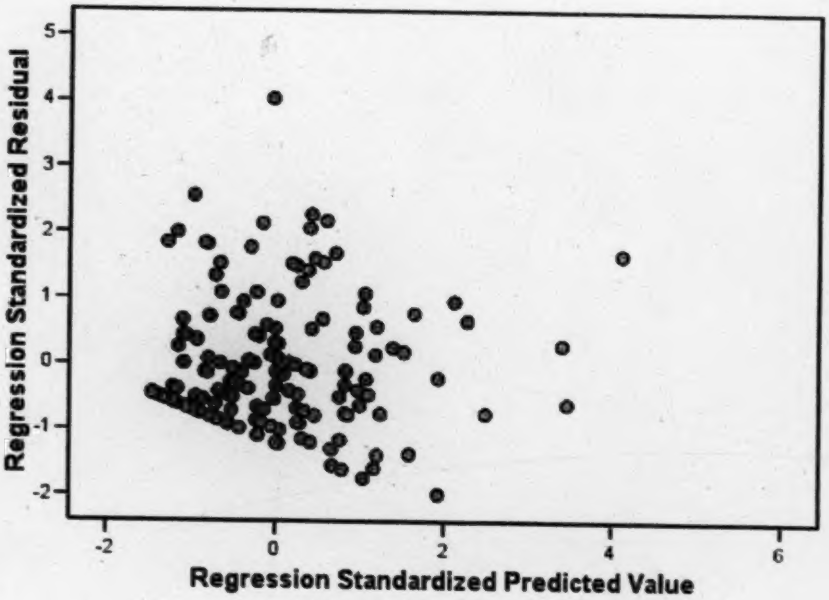

Figure 8. Scatterplot of standardized residuals and standardized predicted values for dyadic loneliness.

Table 14

Hierarchical Regression of Predictor Variables on Emotional Loneliness

Model	Predictors	R^2	R^2 Change	β	F Change	p
1		.05	.05		2.71	.05
	Sex			.09		
	Withdrawal			.08		
	Peer acceptance			-.16		
2		.22	.17		10.73	.00
	Sex			.03		
	Withdrawal			.09		
	Peer Acceptance			-.00		
	Friend Reciprocity			-.08		
	Friend Quality			-.24**		
	Friend Satisfaction			-.23**		

** $p < .01$

An ad hoc log transformation of the dyadic loneliness variable was undertaken. While the scatterplot of standardized residuals and predicted values for the log transformed variable revealed minor improvements over the original scatterplot, slight violations of the regression assumptions remained evident. Furthermore, the regression analyses were subsequently run using the transformed variable and the results were highly consistent with those obtained using the untransformed variable. Therefore, as the transformation did not substantially improve the distribution of the variable and for ease of interpretation, only the results using the untransformed variable are reported.

Q4b) What is the relationship between social withdrawal, peer acceptance, friendship reciprocity, friendship quality, friendship satisfaction, and dyadic loneliness?

Consistent with previous data screening procedures, the QPLOT of partially standardized residuals for dyadic loneliness also revealed that the slope of the fitted line deviates only slightly from 1, and the standardized residuals (+/- 1.35) do not exceed the cutoff criterion of +/- 3.0, suggesting that the residuals are moderately normally distributed.

The path coefficients in the proposed saturated model for dyadic loneliness were estimated using maximum likelihood estimation, and the same three fit indices, GFI, AGFI, and standardized RMR were utilized to assess the fit of the model. Once again, strong support was found for the overall fit of this model to the data. The GFI, AGFI, and standardized RMR were 0.996, 0.919, and 0.015, respectively. However, as revealed in Figure 9, several of the pathways in the saturated model were not significant.

It is evident by Figure 9 that inconsistent with the hypotheses, social withdrawal, peer acceptance, and friendship reciprocity all do not exert direct influences on levels of dyadic loneliness (DL). Rather, these variables are indirectly related to dyadic loneliness via the friendship variables. Significant negative causal paths were found between both friendship quality and friendship satisfaction, and levels of dyadic loneliness, suggesting that both quality of and satisfaction with one's best friendship directly influence the level of dyadic loneliness experienced.

The pathway coefficients between social withdrawal, peer acceptance, and the three friendship variables are consistent with the previous two models: social withdrawal has a significant direct negative effect on both level of peer acceptance and friendship reciprocity; a significant positive causal pathway was found between peer acceptance and friendship reciprocity; and significant positive causal pathways were found between

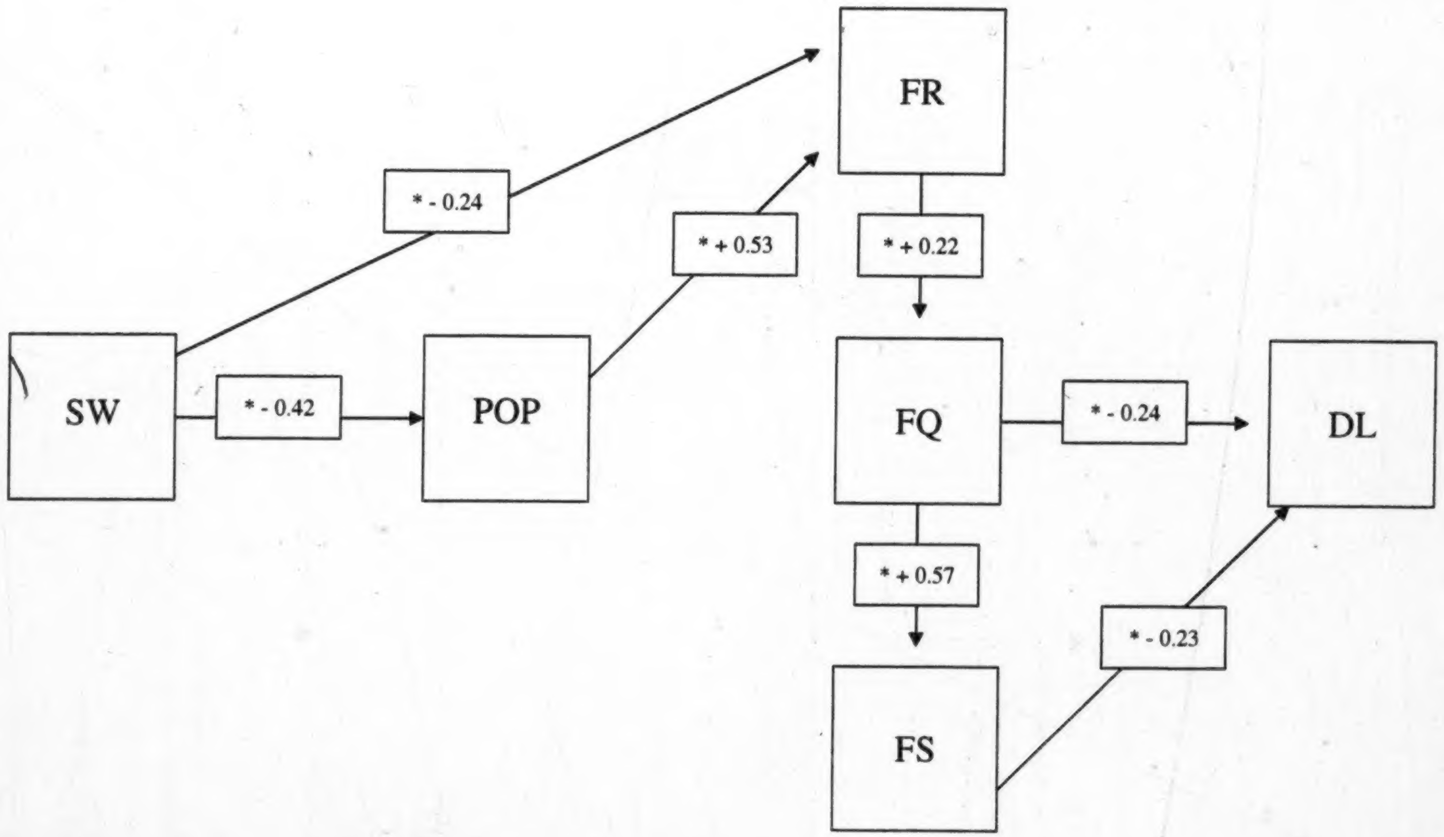
FR
SW
POP
FQ
DL
FS
* - 0.24
* + 0.53
* + 0.22
* - 0.42
* - 0.24
* + 0.57
* - 0.23

Figure 9. Estimated path coefficients predicting dyadic loneliness.

friendship reciprocity and friendship quality, and from friendship quality to friendship satisfaction. Therefore, consistent with hypotheses, higher levels of social withdrawal lead to lower levels of peer acceptance and decrease the likeliness of having a mutual best friend. In addition, higher levels of peer acceptance lead to increased likeliness of having a mutual best friend. As a result, a mediating relationship exists amongst these three variables, whereby peer acceptance partially mediates the relationship between social withdrawal and friendship reciprocity. Finally, an increased likeliness for friendship reciprocity leads to higher levels of friendship quality, which in turn directly influences greater friendship satisfaction.

Similar to the model for peer network loneliness, these results suggest that the friendship variables serve to mediate the relationship between social withdrawal, peer acceptance, and dyadic loneliness. However, the relationship amongst these variables is somewhat more complex. This mediating effect results from a series of direct (and indirect) pathways between the friendship variables and dyadic loneliness: friendship reciprocity directly influences friendship quality, which then directly influences friendship satisfaction, and friendship satisfaction has a direct effect on dyadic loneliness. Yet, there is also evidence of partial mediation in the relationship between two of the friendship variables and dyadic loneliness, as friendship satisfaction serves to partially mediate the relationship between friendship quality and dyadic loneliness.

Friendship and Socioemotional Adjustment of Socially Withdrawn Children

Q5) Are there group and gender differences in friendship quality between withdrawn and "average" (control) children?

A two by two (group X gender) factorial analysis of variance (ANOVA) was performed to determine differences in friendship quality between males and females and withdrawn and control groups. A total of 43 cases were used for the ANOVA analyses. Although data screening revealed a normal distribution for the dependent variable of friendship quality, due to the unequal and small cell sizes (see Table 16), these results should be interpreted with caution. It was hypothesized that there would be significant group and gender differences in this variable.

Results of the ANOVA are presented in Table 15, revealing significant effects of group membership $F(1,39) = 4.10, p < .05$ and gender $F(1,39) = 7.32, p < .05$. There was no significant interaction effect between group and gender, $F(1,39) = 0.45, p = 0.51$. The mean scores and standard deviations are presented in Table 16. In examining the mean scores for each of the dependent variables, participants in the control group reported higher levels of friendship quality than those in the withdrawn group. Females also reported higher levels of friendship quality than males.

Table 15

Summary of ANOVA for Friendship Quality

Effect	*F*	df (err)	*p*
Group	4.10	39	.05*
Gender	7.32	39	.01**
Group X Gender	0.45	39	.51

*$p < .05$, **$p < .01$

Table 16

Means and Standard Deviations of Friendship Quality

Group	Gender	*M*	*SD*	*n*
Control	Female	3.03	.66	9
	Male	2.61	.52	14
	Total	2.78	.60	23
Withdrawn	Female	2.75	.56	7
	Male	2.06	.77	13
	Total	2.31	.77	20
Total	Female	2.91	.62	16
	Male	2.35	.70	27
	Total	2.56	.72	43

Q6) Are there group and gender differences in friendship satisfaction between withdrawn and "average" (control) children?

Similarly to the previous analysis, a 2 X 2 (group X gender) factorial ANOVA was performed to determine differences in friendship satisfaction. Although this dependent variable was not normally distributed, a log transformation did not appear to improve the distribution, and hence, the transformed variable was not used for the analysis. This nonnormal distribution, as well as the small and unequal cell sizes, must be considered when interpreting these results. A summary of the ANOVA is shown in Table 17. Results revealed no significant effects of group membership F (1,39) = 0.05, p = .82, or gender F (1,39) = 0.02, p = .89. There were also no significant interaction effects, F (1,39) = 0.47, p = .50 . The mean scores and standard deviations are presented in Table 18. An examination of the mean scores revealed that levels of perceived friendship satisfaction were highly consistent across all children in these two subgroups, despite differences in perceived friendship quality.

Table 17

Summary of ANOVA for Friendship Satisfaction

Effect	*F*	df (err)	*p*
Group	0.05	39	.82
Gender	0.02	39	.89
Group X Gender	0.47	39	.50

Table 18

Means and Standard Deviations of Friendship Satisfaction

Group	Gender	*M*	*SD*	*n*
Control	Female	4.56	.58	9
	Male	4.71	.38	14
	Total	4.65	.46	23
Withdrawn	Female	4.64	.48	7
	Male	4.54	.83	13
	Total	4.58	.71	20
Total	Female	4.59	.52	16
	Male	4.63	.63	27
	Total	4.62	.59	43

Q7) Are there group and gender differences in socioemotional adjustment (as measured by social self-perceptions, peer network loneliness, and dyadic loneliness) between withdrawn and "average" (control) children?

A 2 X 2 (group X gender) between subjects multivariate analysis of variance (MANOVA) was conducted to determine the differences in socioemotional variables between the withdrawn and control groups. It was hypothesized that significant group differences would be found for these variables. The data set for the 43 participants in the two groups was evaluated for the limitations and assumptions of MANOVA: assumption of normality; assumption of linearity; and assumption of homogeneity of variance-covariance. Spot checks for bivariate linearity were conducted, revealing linear relationships amongst the dependent variables. The homogeneity of variance-covariance assumption was ensured as Box's M test was not significant. However, as each cell contained less than 20 cases, multivariate normality was not ensured. Frequency distributions of the dependent variables revealed that two of the variables (peer network and dyadic loneliness) were moderately positively skewed, while the distribution of social self-perceptions was only slightly positively skewed. To try to improve all distributions, log transformations were performed on each of the dependent variables. Although these transformations improved data distributions, they did not significantly change the MANOVA results. Hence, the nontransformed variables were used for the analyses for ease of interpretation of results. Overall, due to the small and unequal cell sizes, and nonnormal distribution of some variables, these results should be interpreted with caution.

Inconsistent with the hypotheses, Wilks Lambda criterion revealed no significant effects for group F (3,37) = 1.20, p = .32, gender F (3,37) = 1.03, p = .39, or group X gender interaction F (3,37) = 1.04, p = .39. A summary of the results from this MANOVA are presented in Table 19. Mean scores and standard deviations from these analyses can be found in Table 20.

As these multivariate tests were all nonsignificant, the results from follow-up univariate analyses were disregarded. However, a review of the pattern of mean scores revealed some consistency with earlier research. Withdrawn children, especially withdrawn girls, reported more negative social self-perceptions than "average" control children. Although withdrawn girls reported higher levels of social (peer network) loneliness than their control counterparts, withdrawn boys reported lower levels of this type of loneliness than their average peers. Furthermore, both withdrawn girls and withdrawn boys reported higher levels of emotional (dyadic) loneliness, with withdrawn boys reporting even greater emotional loneliness than their female counterparts.

Table 19

Summary of MANOVA for Socioemotional Adjustment Variables

Effect	Wilks' Lambda	*F*	df (hyp)	df (err)	*p*
Group	.91	1.20	3	37	.32
Gender	.92	1.03	3	37	.39
Group X Gender	.92	1.04	3	37	.39

Table 20

Means and Standard Deviations of the Socioemotional Adjustment Variables for the Withdrawn and Control Children

Variable	Group	Gender	*M*	*SD*	*n*
SSP	Control	Female	2.17	.87	9
		Male	2.06	.73	14
		Total	2.10	.77	23
	Withdrawn	Female	2.71	.67	7
		Male	2.33	.57	13
		Total	2.47	.62	20
	Total	Female	2.41	.81	16
		Male	2.19	.66	27
		Total	2.27	.72	43
PNL	Control	Female	1.75	.91	9
		Male	1.96	.59	14
		Total	1.88	.72	23
	Withdrawn	Female	2.27	.54	7
		Male	1.87	.67	13
		Total	2.01	.64	20
	Total	Female	1.97	.79	16
		Male	1.92	.62	27
		Total	1.94	.68	43
DL	Control	Female	1.56	.74	9
		Male	1.75	.53	14
		Total	1.67	.61	23
	Withdrawn	Female	1.79	.58	7
		Male	1.90	.58	13
		Total	1.86	.57	20
	Total	Female	1.66	.66	16
		Male	1.82	.55	27
		Total	1.76	.59	43

Note. SSP, social self-perceptions; PNL, peer network loneliness; DL, dyadic loneliness.

Q8) Are socially withdrawn children as successful as their average peers in establishing reciprocated best-friendships? More specifically, what proportion of socially withdrawn children has a reciprocated best friendship?

A cross-tabulation was performed to determine if there are differences in friendship reciprocity between the withdrawn and control children. It was hypothesized that control children would be more likely to have a reciprocated best friendship than their withdrawn counterparts.

The results from this analysis are found in Tables 21. The Pearson Chi-Square value, $\chi^2 = 22.86$, $p < .05$ indicated a strong relationship between friendship reciprocity and withdrawn behaviour. Specifically, 15 of the 20 withdrawn children did not have a reciprocated best friend, while 22 of the 23 control children had a reciprocated best friend. These results support the notion that children who are withdrawn are less likely to have a reciprocated best friendship. That is, the peers that these withdrawn children select as their best friends do not in turn choose them as their best friends. It is also important to note the influence of gender in this relationship. Of the 15 withdrawn children who were not a part of a reciprocal best friendship, the majority of children were male (11). Thus, it appears that withdrawn males experience more difficulty forming mutual friendships than females.

Table 21

Representation of Children with and without Reciprocated best friendships

		Friendships		Total
		Reciprocated best friend	Nonreciprocated best friend	
	Withdrawn Children	5	15	20
Groups	Control Children	22	1	23
	Total	27	16	43

Q9) Are there differences in socioemotional adjustment (as measured by social self-perceptions, peer network loneliness, and dyadic loneliness) between socially withdrawn children with and without a reciprocated best friend?

Of interest was whether or not having a reciprocated friend buffers withdrawn children from more negative socioemotional adjustment. A one-way MANOVA was conducted to determine the differences between socially withdrawn children with (5) and without (15) a reciprocated best friend on measures of socioemotional adjustment. It was hypothesized that significant group differences would be found for these variables, as having a mutual friend may have positive effects on one's level of socioemotional adjustment.

The subset of withdrawn children (*n*=20) was used for these analyses, and therefore, gender was not considered as an independent variable. This data subset was also evaluated for the limitations and assumptions of MANOVA. Spot checks for bivariate linearity were conducted, revealing linear relationships amongst the dependent variables. The homogeneity of variance-covariance assumption was ensured as Box's M test was not significant. Similar to previous analyses, as the cell sizes were unequal and each contained less than 20 cases, multivariate normality was not ensured, and frequency distributions of each of the dependent variables revealed slightly positively skewed distributions. Although log transformations slightly improved the distributions, using the transformed variables in the analysis did not significantly alter the results, and thus, the untransformed variables were utilized. Again, due to the very small and unequal cell sizes, and nonnormal distributions, these results should be interpreted with caution.

Wilks Lambda criterion revealed no significant effects of group *F* (3,16) = 2.728,

$p = .078$, ns. Means and standard deviations for each variable are presented in Table 22. Despite the nonsignificance of these findings, in reviewing the pattern of mean scores it is interesting to note that inconsistent with hypotheses, withdrawn children with reciprocated best friends reported more negative social self-perceptions than their withdrawn counterparts without best friends. However, consistent with hypotheses, mean scores also revealed that those withdrawn children without a reciprocated best friend reported more emotional and social loneliness than their counterparts with a reciprocated best friend, supporting the notion that having a reciprocated best friendship may indeed have positive effects on the levels of socioemotional adjustment of withdrawn children.

Table 22

Means and Standard Deviations for Withdrawn children with and without a reciprocated best friendship on the socioemotional adjustment variables

Variable	Group	*M*	*SD*	*n*
SSP	With RBF	2.73	.25	5
	Without RBF	2.38	.69	15
	Total	2.47	.62	20
PNL	With RBF	1.85	.63	5
	Without RBF	2.06	.66	15
	Total	2.01	.64	20
DL	With RBF	1.50	.45	5
	Without RBF	1.98	.57	15
	Total	1.86	.57	20

Q10) Are there differences in friendship quality between socially withdrawn children with and without a reciprocated best friend?

A one-way ANOVA was performed to determine differences in friendship quality between withdrawn children with and without a reciprocated best friend. It was hypothesized that there would be significant group differences in friendship quality as a function of reciprocity. Although friendship quality was normally distributed within this subgroup of children, due to unequal and small cell sizes, these results should be interpreted with caution.

Results of the ANOVA revealed significant effects of group membership F (1,18) = 11.46, $p < .01$. The mean scores and standard deviations are presented in Table 23. An examination of mean scores revealed that consistent with the hypothesis, withdrawn children with a reciprocated best friendship reported significantly higher levels of friendship quality than those withdrawn children whose reported best friendships were not mutual.

Table 23

Means and Standard Deviations for Withdrawn children with and without a reciprocated best friendship for Friendship quality

Variable	Group	*M*	*SD*	*N*
FQ	With RBF	3.11	.65	5
	Without RBF	2.04	.60	15
	Total	2.31	.77	20

Q11) Are there differences in levels of friendship satisfaction between socially withdrawn children with and without a reciprocated best friend?

A one-way ANOVA was also performed to determine differences in friendship satisfaction between withdrawn children with and without a reciprocated best friend. It was hypothesized that there would be significant group differences in friendship satisfaction as a function of reciprocity. Again, due to the nonnormal distribution (before and after data transformation) and unequal and small cell sizes, these results should be interpreted with caution.

Results of the ANOVA revealed no significant effects for group membership $F(1,18) = 2.57, p = .13$. The mean scores and standard deviations are presented in Table 24. Although the results were nonsignificant, the pattern of mean scores suggested somewhat higher levels of friendship satisfaction amongst those withdrawn children with mutual friendships than with their withdrawn counterparts without reciprocated best friendships.

Table 24

Means and Standard Deviations for Withdrawn children with and without a reciprocated best friendship for Friendship satisfaction

Variable	Group	*M*	*SD*	*n*
FS	With RBF	5.00	.00	5
	Without RBF	4.43	.78	15
	Total	4.58	.71	20

Q12) What are the behavioural and socioemotional characteristics (identity) of the friends selected by socially withdrawn children?

A qualitative examination of the identity of socially withdrawn children's friends was undertaken by exploring the social behaviour, social status, socioemotional adjustment, and friendship adjustment of the children nominated by these children as best friends. As was evident from earlier analyses, five children had reciprocated best friendships and 15 children's best friendships were nonreciprocated. Furthermore, only one of the withdrawn children selected as their best friend another child who did not have a reciprocated best friendship.

When considering social behaviour and social status characteristics, only one of the withdrawn children chose a withdrawn child (withdrawn and unpopular based on this study's criteria) as their best friend. This friend was also the only friend selected who did not have a reciprocated best friendship. In contrast, 11 withdrawn children chose children who were classified as popular and not withdrawn as their best friends. Of these 11 children, one best friendship was reciprocated. Seven of the remaining eight children chose friends of average peer status demonstrating both withdrawn (two children) and nonwithdrawn (two children) social behaviour, of popular peer status with withdrawn characteristics (one child), or of unpopular peer status with nonwithdrawn social behaviour (two children). The identity of one of the withdrawn childrens' friendships remained unknown due to missing data.

In order to examine the socioemotional adjustment of the friends selected by the withdrawn children, scores on the three adjustment measures were gathered for all children (n= 18, not 20, as two cases were selected twice) selected as friends by the withdrawn sample. These scores are presented in Table 25. Evidently, when compared to the average scores for the entire sample, half (9/18) of all children selected as friends reported more negative social self-perceptions, half (9/18) reported higher levels of dyadic loneliness, and two thirds (12/18) reported higher levels of peer network loneliness. Six of these children (33.3%) were more poorly adjusted across all three outcome measures combined, 11 (61.1%) were poor across at least two of the three measures, and two (11.1%) reported difficulty in just one area of adjustment. Overall, only five children (27.8%) selected by the withdrawn children as friends reported more positive adjustment than average in all three domains, and of these five children, two children (40.0%) were reciprocal best friends with a withdrawn child.

Summary of Results

Self-report and peer assessment data was collected for 158 children in grades four, five, and six. Preliminary analyses explored withdrawal subgroup configurations and failed to provide empirical support for the passive withdrawal and active isolation subgroups. Results of the hierarchical regression analyses for the entire sample revealed different patterns of predictors for each of the socioemotional adjustment variables. While social withdrawal was the only predictor of negative social self-perceptions, friendship satisfaction was the single predictor of peer network loneliness, and both friendship quality and friendship satisfaction were the two predictors of dyadic loneliness.

Results from the path analyses were consistent with the regression results, and extended the findings regarding the interrelationships amongst the variables. A summary of the main findings revealed that: 1) peer acceptance partially mediated the relationship

Table 25

Scores for the socioemotional adjustment variables of friends selected by withdrawn Children

Reciprocity Status	Case	SSP	PL	DL
N/A	*N*=158	2.11	1.86	1.69
Reciprocated	1	1.67	1.50	1.13
	2	1.33	1.13	1.00
	3	**2.67**	**1.88**	1.25
	4	**2.50**	1.50	1.38
	5	**3.50**	**2.88**	1.50
Non-reciprocated	6	1.00	1.00	1.00
	7	2.00	**2.38**	**2.75**
	8	1.17	**2.25**	**2.50**
	9	**2.17**	**1.88**	**2.13**
	10	1.67	**1.88**	**1.75**
	11	**2.33**	**2.13**	**1.88**
	12	1.50	**1.88**	1.63
	13	**2.50**	**1.88**	**1.75**
	14	1.50	1.50	1.25
	15	**2.17**	**2.25**	**2.50**
	16	1.50	1.63	1.63
	17	**2.33**	**3.75**	**3.88**
	18	**2.50**	**2.25**	**2.25**

Note. Scores in bold are higher (i.e., poorer adjustment) than the mean scores for the sample.

between social withdrawal and friendship reciprocity; 2) social withdrawal directly influenced social self-perceptions, but had no direct influences on loneliness; 3) peer acceptance had no direct influences on the three socioemotional variables; 4) there were no direct relationships between social withdrawal or peer acceptance and friendship quality or friendship satisfaction; 5) the friendship variables failed to mediate the relationship between social withdrawal, peer acceptance, and social self-perceptions, and finally, 6) a mediating effect of the friendship variables was evident for the relationship between social withdrawal, peer acceptance, friendship, and both peer network and dyadic loneliness.

Results from comparisons between socially withdrawn children and "average" (control) children revealed that: 1) consistent with hypotheses, there were significant group and gender differences in friendship quality, 2) inconsistent with hypotheses, group and gender differences in friendship satisfaction and socioemotional adjustment were nonsignificant, and 3) as predicted, withdrawn children were less likely to have a reciprocated best friend than their control counterparts. When reciprocated friendships were considered, while it was hypothesized that withdrawn children with a reciprocated best friendship would be better off in terms of friendship and socioemotional adjustment, only partial support for this hypothesis was obtained. Although withdrawn children with a mutual best friendship reported higher levels of friendship quality, there were no significant differences in friendship satisfaction, social self-perceptions, peer network loneliness, or dyadic loneliness.

Finally, qualitative explorations of the friendship identity of withdrawn children indicated that contrary to popular beliefs, withdrawn children do not seek friends of behavioural and sociometric similarity. Rather it may seem that their selected friendships may be representative of their own ideals for social behaviour and acceptance. Furthermore, a socioemotional profile emerged for the friends selected by those who are withdrawn whereby nearly two-thirds (11/18) of these children reported poor adjustment across at least two of the three adjustment criteria.

CHAPTER FIVE: DISCUSSION

The purpose of this study was to examine the relationship between social withdrawal, peer acceptance, friendship adjustment (as measured by friendship reciprocity, friendship quality, and friendship satisfaction), and socioemotional adjustment (as measured by social self-perceptions, peer network loneliness, and dyadic loneliness), and to investigate differences in friendship and socioemotional adjustment between socially withdrawn children and their "average" (control) peers. In particular, of interest was whether friendship variables have unique contributions to socioemotional adjustment and serve to mediate the relationship between withdrawal and adjustment.

This chapter will provide a brief summary of this study's findings, followed by an in-depth discussion of the results for each research question in consideration of the existing research in this area. Subsequent sections outline the implications of this study and inherent limitations, as well as a discussion of future research directions.

General Findings

The results of this study revealed several important findings. First, this study failed to provide empirical support for the withdrawal subgroups of passive withdrawal and active isolation. Second, while only one variable, social withdrawal, significantly predicted negative social self-perceptions, a different pattern of results emerged for loneliness. Friendship satisfaction significantly predicted feelings of social loneliness and both friendship quality and friendship satisfaction were found to significantly predict emotional loneliness.

Third, the path model for three different types of socioemotional adjustment revealed that while social withdrawal has direct influences on social self-perceptions, no similar direct effects were found for loneliness. Furthermore, while peer acceptance did not directly influence any of the adjustment variables, it partially mediated the relationship between social withdrawal and friendship reciprocity. In addition, although the friendship variables failed to mediate the relationship between social withdrawal, peer acceptance, and social self-perceptions, a mediating effect was in fact observed for these variables in the relationship between social behaviour/status indices and the two dimensions of loneliness.

Fourth, socially withdrawn children demonstrated poorer friendship quality and were less likely to have a reciprocated best friendship than their "average" peers. In addition, females reported higher levels of friendship quality than their male counterparts. Group and gender differences in socioemotional adjustment and friendship satisfaction were nonsignificant. Fifth, while socially withdrawn children with a reciprocated best friendship reported higher levels of friendship quality, having a mutual best friend did not significantly influence levels of friendship satisfaction or overall perceived socioemotional adjustment. Finally, children with withdrawn profiles did not tend to select as their best friends children with similar behavioural difficulties, and a large portion (61%) of these children selected best friends with relatively poor socioemotional adjustment.

Research Questions

The Heterogeneity of Social Withdrawal

Q1) Does the present research provide empirical support for the construct validity of the passive withdrawal and active isolation subgroups of social withdrawal in middle childhood/preadolescence?

Prior to conducting the primary analyses for this study, an exploration of the heterogeneity of social withdrawal was undertaken in an effort to provide empirical support for the construct validity of the passive withdrawal and active isolation subgroups of social withdrawal. Several researchers have alluded to the importance of considering inherent behavioural differences within social withdrawal, particularly in relation to the nature of isolation and whether it is self or peer-imposed, and empirical evidence for the existence of these two subgroups has been documented (Bowker et al., 1998; Hoza et al., 1995; Rubin & Mills, 1988; Younger & Daniels, 1992). However, most research has adopted a unidimensional approach to the nature of this construct. Rationale for this "umbrella" construct of social withdrawal is connected to the work of researchers suggesting that the variations in social withdrawal become "blended" by middle childhood (Asendorpf, 1993) and equally salient to the peer group (Younger, Gentile, & Burgess, 1993).

Inconsistent with the previous studies (Bowker et al., 1998; Hoza et al., 1995; Rubin & Mills, 1988; Younger & Daniels, 1992), results from the factor analysis in the current investigation did not support the two-dimensional nature of social withdrawal. Rather, all of the items measuring socially withdrawn behaviour loaded on a single factor, suggesting that social withdrawal is a unidimensional construct. One reason for failing to find a distinction between the withdrawal subgroups may be the smaller sample size that was used for this factor analysis (N=158). Comparatively, both Bowker and colleagues (1998) and Hoza and colleagues (1995) utilized significantly larger sample sizes (N=236) than that which was used for the present study, and perhaps the use of a larger sample would support the two-factor model of social isolation.

Beyond the sample size, one must also consider the nature of the sample. In contrast to previous studies, a consent cut-off criterion of 66% was used in an effort to effectively capture the social dynamics of the classrooms involved, a value substantially lower than that used in previous studies (i.e., > 75% of potential pool, Bowker et al., 1998; >98 % of potential pool, Boivin et al., 1994; Parker & Asher, 1993). This more lenient cut-off rate was implemented due to the difficulties encountered with obtaining the proposed sample size for the current investigation. The question therefore arises as to whether the present sample provided an accurate reflection of the social structures within the classrooms, and perhaps more inclusive classroom groups would have provided clearer distinctions across the social behaviour items used to represent passive withdrawal and active isolation.

Furthermore, one must reconsider the way in which these subgroups were defined in relation to the age of this sample. Theoretically, the distinction between self-imposed and peer-imposed isolation seems sensible, and empirically, this distinction has been supported amongst middle childhood samples of children. Yet, research supports the notion that withdrawn behaviour in general is viewed more negatively by peers by middle childhood and beyond (Younger et al., 1993), and as such, perhaps attempting to differentiate between these types of solitude at this age is masked by the more powerful construct of rejection. That is, peer-perceptions of withdrawn behaviour become more generalized by rejection, making any distinctions in peer-perceived solitude somewhat meaningless. Nevertheless, additional research examining the nature of social withdrawal is necessary in order to better understand the possible heterogeneity that exists within this construct.

Predicting Measures of Socioemotional Adjustment

Research exists to support the significance of friendship in overall adjustment. Both the presence of friends and/or the quality of friendships have been found to influence levels of loneliness and/or negative social self-perceptions (Bagwell et al., 1998; Newcomb & Bagwell, 1996; Parker & Asher, 1993). In particular, unique contributions of these variables to socioemotional adjustment have been found. Yet, what remains unknown is whether three particular friendship components (reciprocity, quality, and satisfaction) have unique contributions to socioemotional adjustment when the levels of social withdrawal and peer acceptance have been accounted for. It has been suggested that children's social self-perceptions and feelings of loneliness emerge due to a combination of direct and indirect influences (Boivin & Hymel, 1997). However, based on this review of the literature, there does not appear to be any research that has examined the possible mediating/moderating effects of friendship on adjustment in relation to social withdrawal. The current investigation addressed these issues, and the results indicated varying effects of three friendship variables for different measures of socioemotional adjustment.

Social Self-Perceptions

Q2a), Q2b) Do friendship reciprocity, quality, and satisfaction significantly predict social self-perceptions when the effects of social withdrawal and peer acceptance are controlled for? What is the relationship between social withdrawal, peer acceptance, friendship reciprocity, friendship quality, friendship satisfaction, and social self-perceptions?

Results from the regression analyses indicated that the friendship variables did not have unique contributions to social self-perceptions. The three components of friendship (i.e., friendship reciprocity, friendship quality, and friendship satisfaction) failed to predict negative social self-perceptions, and socially withdrawn behaviour remained the only significant predictor of this adjustment measure. Consistent with these findings were the results from the exploratory path analyses that found a direct relationship between social withdrawal and social self-perceptions, with no alternative direct effects on this measure of adjustment. This direct relationship between social withdrawal and social self-perceptions has been documented in other studies (Boivin & Hymel, 1997; Boivin et al., 1995), and suggests that these individuals may in fact have cognitive predispositions for understanding their social world and perceiving themselves in a more negative light (Boivin & Hymel, 1997).

However, while it was expected that these social self-perceptions would be derived from several direct and indirect influences, the proposed model failed to support this notion. In particular, in contrast to other research (Boivin & Hymel, 1997; Boivin et al., 1995), this study failed to find a direct relationship between social status and negative social self-perceptions. One reason for this finding may have been the strong negative correlation that exists between the social withdrawal and peer acceptance variables. This strong negative correlation suggests that these two variables may be somewhat redundant, and this underlying redundancy may have masked any influence of peer acceptance on social self-perceptions. To illustrate this redundancy, ad hoc regression analyses that utilized these predictors (social withdrawal and peer acceptance) in isolation produced significant results for both variables. Thus, while the strength of prediction is enhanced by the presence of the two variables (i.e., more variance is accounted for), the significant overlap between these two variables weakens the causal pathways in the model.

Another reason that may account for these findings is the way in which peer acceptance was measured. These methods involved unidimensional ratings of likeability to represent a general measure of popularity or overall acceptance. Boivin and colleagues (1995; 1997), in contrast, utilized a bidimensional measure of social preference based on a combination of sociometric nominations (liked most and liked least). Such measures of social preference, unlike the single dimension of likeability, provide a more stringent evaluation of social status as they take into account the degree to which a child is liked *and* disliked. Thus, it may be plausible that if a stricter measure of social preference was employed, a different pattern of direct influences may have emerged.

Furthermore, this pattern of findings may reflect the nature of each of the measures. In particular, the social self-perception measure was comprised of many items (4/6) reflecting how one observes oneself in the social milieu (i.e., successes/failures). Similarly, the social withdrawal measure reflected how their peers view (i.e., behavioural observation) them in the social milieu. The strong correlation between these two measures reflects this consistency. In contrast, the popularity measure reflected how their peers *feel* about them and is an affectively-laden construct. The relationship between this variable and the social self-perceptions variable was significantly weaker. Thus, failure to find a direct relationship between these two variables may have been due to these underlying differences in the nature of the variable and how it was measured. Regardless, these findings suggest that peer observations and perceptions of a child's social behaviour are stronger predictors of that child's social self-perceptions than the degree to which peers enjoy their company.

The direct path from social withdrawal to peer acceptance in the proposed model lends support to the notion that social behaviour precedes social status. This is consistent with the view that children come to the peer group with inherent behavioural tendencies, and these behaviours, over time, influence the degree to which they are accepted and/or rejected by their peers (Boivin & Hymel, 1997; Coie, 1990; Hymel et al., 1990; Younger et al., 1993).

Regarding the friendship variables, the results from the present study have important implications. First, that friendship variables do not influence social self-perceptions suggests that one's perceived social success is more closely tied to peer perceptions of social behaviour within the larger peer group, than it is to specific friendships and their features. In other words, when it comes to evaluating oneself in the broader social milieu, friendship adjustment may have little clout. Second, one must consider the context within which these variables are derived. The measure of social self-perceptions is a broad and general evaluation of one's social success, which may reflect their self-perceptions in relation to their specific classroom environment, as well as other social settings (e.g., larger school network, community, etc.). In contrast, the friendship measures are derived from a specific friendship within the classroom, regardless of their presence or absence of additional (and perhaps better) friendships beyond that classroom setting. Therefore, although there is overlap, one cannot ignore the inherent differences between contexts from which these measures are derived. It may be that if the social self-perception measure was specifically geared towards the classroom setting, or vice versa, the friendship nominations were not limited to the classroom setting, a different pattern of influences would emerge. As such, it may be worthwhile to consider this congruency between measures in a replication study. Third, these findings suggest that friendship reciprocity, quality, and satisfaction fail to exert significant influences on social self-perceptions, and hence are inconsistent with the notion that friendships may act as a socioemotional buffer for children exhibiting withdrawn behaviour. However, as mentioned previously, such a buffering relationship may exist when friendships beyond the classroom context are considered. Thus, it would be worthwhile in future research to consider the impact of other, and perhaps more intimate friendships on one's perceptions of social competence.

While it was proposed that direct relationships might be found between the social behaviour and status variables and all three measures of friendship, such direct effects were only found for friendship reciprocity. These results are consistent with the notion of "...popularity as an affordance for friendship (Bukowski et al., 1996), whereby greater acceptance leads to more friendship opportunities, and hence increased chances for establishing a reciprocated friendship. Consistent with earlier research, Bukowksi et al. (1993) found a direct relationship between popularity and friendship reciprocity. In contrast to the current findings, these researchers also found direct links between popularity and friendship quality, albeit these links were significantly weaker than the connections with reciprocity. However, they used only two subscales from a different measure of friendship quality (*Friendship Qualities Scale*, Bukowski et al., 1993), limiting comparison of this component of friendship across the two studies. Similarly, another study examining the relationship between popularity and friendship also found a direct link between these two variables (Nangle et al., 2003). However, their friendship variable was comprised of two factors, both friendship quantity and quality, and the quality factor included evaluations of the quality of both good friendships and best friendships, and their significant findings may reflect these inherent differences in the nature of the measures.

Upon speculation, another reason for this pattern of findings is plausible: the issue of peer assessments versus self-reports. Social withdrawal and peer acceptance are both based on peer assessments, as is the measure of friendship reciprocity. Although each child nominated their best friend, the actual dichotomous value of friendship reciprocity (i.e., presence or absence of a reciprocated best friend) was based on peer nominations of that friendship. Thus, that a direct relationship was found between these peer-measured variables is not surprising. In contrast, both friendship quality and friendship satisfaction are measured subjectively based on self-report data and are independent of social behaviour and social status. Furthermore, these self-reports reflect *actual* as well as *perceived* friendships with particular individuals, thus influencing the accuracy of such reports. In other words, to be considered *true* measures of quality and satisfaction, should these measures be based on *actual* reciprocated friendships rather than *unidimensional* or *perceived* friendships? For the present study, having a reciprocated best friendship was not a necessary condition for evaluating friendship quality and perceived satisfaction. As a result, it may be that the discordant methods of measuring, as well as the inherent nature of the friendship, are confounding any potential direct effects between social withdrawal and peer acceptance, and friendship quality and satisfaction.

The relationships that were found between these friendship variables are noteworthy. These three variables have not been considered simultaneously in the research on social withdrawal. According to theory, reciprocity is the essential and defining feature of a friendship (Hartup, 1996). Thus, it seems logical that this feature must be present prior to friendship quality or satisfaction, suggesting a temporal sequencing of these friendship variables. Results from the path analysis were consistent with expectations. That is, in the proposed model, consistent with theory, friendship reciprocity leads to friendship quality, which in turn affects friendship satisfaction. A strong positive association between quality and satisfaction was also found by Parker and Asher (1993). In addition, previous research examining the relationship between friendship reciprocity and friendship quality has also demonstrated that mutual friendships are characterized by higher quality (Bukowski et al., 1994b; Newcomb & Bagwell, 1996). Thus, although prior research has not examined the simultaneous indirect and direct influences of all of the variables considered in the present study, the strong associations found between the friendship variables in the current model are highly consistent with these earlier findings.

The pattern of findings from the present study also shed light on the nature of the social withdrawal construct. For this study, support for the two-dimensional nature of social withdrawal was not found, and thus, a unidimensional measure of withdrawal was utilized. However, Bowker et al. (1998), with their middle-childhood/preadolescent sample, found strong support for the passive withdrawal and active isolation subgroups of withdrawal. Furthermore, while active isolation was strongly associated with peer acceptance/rejection and externalizing difficulties, passive withdrawal was strongly associated with problems of an internalizing nature. These researchers advocated that failure to consider these components of social withdrawal may possibly undervalue the links between this problematic form of social behaviour, peer relations, and adjustment.

Thus, the question arises regarding the utility of this mediational model for these social withdrawal subgroups. Perhaps a different pattern of indirect and direct effects would emerge? As such, considering this two-dimensional nature of social withdrawal in future research examining the pattern of relationships between all of these variables seems prudent.

Peer Network and Dyadic Loneliness

Q3a), Q3b) Do friendship reciprocity, quality, and satisfaction significantly predict peer network loneliness when the effects of social withdrawal and peer acceptance are controlled for? What is the relationship between social withdrawal, peer acceptance, friendship reciprocity, friendship quality, friendship satisfaction, and peer network loneliness?

Q4a), Q4b) Do friendship reciprocity, quality, and satisfaction significantly predict dyadic loneliness when the effects of social withdrawal and peer acceptance are controlled for? What is the relationship between social withdrawal, peer acceptance, friendship reciprocity, friendship quality, friendship satisfaction, and dyadic loneliness?

Specific research that has examined the complex relationship between loneliness and various social variables is limited. Of that which has been documented, predictive relationships have been found between social withdrawal, negative peer status, and feelings of loneliness (Boivin & Hymel, 1997; Boivin et al., 1995; Renshaw & Brown, 1993). Furthermore, having few or no friends has reportedly had unique contributions to loneliness (Renshaw & Brown, 1993). Direct relationships have been found linking friendship (reciprocity, quality, and/or quantity) to loneliness (Bukowski et al., 1993;

Nangle et al., 2003). However, loneliness in these studies has always been considered and measured as a unidimensional variable, and researchers have failed to consider the separateness of social (peer network) and emotional (dyadic) loneliness (Hoza et al., 2000; Qualter & Munn, 2002). As such, the current investigation addressed this void by considering both components of loneliness.

Considering that the results from this investigation are going to be discussed in the context of the current literature, it seemed prudent to discuss the results from the regression and path analyses for each of the loneliness variables simultaneously. In addition, as the relationships between the social withdrawal, peer status, and friendship variables remained unchanged across each of the three socioemotional adjustment variables, no further discussion will be provided here for these pathways in the proposed models (refer to the discussion for research question 2a) and 2b). Instead, the emphasis of this discussion will address the unique findings for the two loneliness variables.

Results from the regression analyses for peer network loneliness revealed that only one variable had a unique contribution to its prediction: friendship satisfaction. Findings from the path analyses for peer network loneliness were consistent with the regression analyses. For the other component of loneliness (dyadic/emotional), both friendship quality and friendship satisfaction were significant predictors and hence, uniquely contributed to dyadic loneliness. Subsequent path analyses confirmed and expanded these findings.

The negative predictive relationship that was found between friendship satisfaction and peer network loneliness suggests a positive effect of friendship on social loneliness. Friendship satisfaction represents one's subjective interpretation of the success of a particular best friendship. Thus, if one feels satisfied with their friendship and how it is going, this feeling of social success may serve to mask any feelings of social failure, isolation, or loneliness within the larger peer context. In other words, it may be plausible that being satisfied with one's friendship serves to buffer against more general feelings of loneliness, beyond the context of that individual friendship. With regards to the dyadic component of loneliness, the present findings imply that both feeling satisfied with one's friendship, and having a friendship of higher quality, may collectively act as a buffer against feelings of emotional loneliness.

A potential buffering relationship between friendship and adjustment has been suggested by other researchers and theorists (e.g., Erdley et al., 2001; Hodges et al., 1999; Sullivan, 1953), although these individuals were specifically referring to the presence of a friendship. Findings from the present study, in contrast, found that it is the perceived quality and satisfaction of one's friendship, rather than having a best friend, that may provide this buffering effect. One plausible reason for why no significant path was found between friendship reciprocity and either of the loneliness variables may be the objective nature of the friendship reciprocity variable. Although each participant nominated their best friendship, in order to be considered reciprocal, the friendship must be perceived as mutual by the nominated child. In this manner, the variable is defined objectively. On the other hand, friendship quality, friendship satisfaction, and the two loneliness variables are completely subjective, representing subjective-self-perceptions of a chosen best friendship and one's adjustment, respectively. Thus, the direct relationships that emerged in this study may reflect the inherent nature of these individual variables and how they are measured.

Another reason may exist for the current pattern of findings. As discussed previously, the measure of friendship reciprocity considers only true or actual reciprocal friendships. Yet, unidimensional, or perceived reciprocal friendships are not included. Thus, it may be that the *perception* of reciprocity is more important or influential for experienced loneliness than reciprocity itself. In other words, it is one's perception of having a friend rather than the reciprocal nature of that friendship, that may serve to buffer against the harmful effects of poor peer acceptance.

Finally, it may be that friendship reciprocity exerts its effect on the loneliness variables indirectly through one or both of the remaining friendship variables. That is, friendship quality and satisfaction mediate the relationship between friendship reciprocity and loneliness. In a mediating relationship, "…a given variable may be said to function as a mediator to the extent that it accounts for the relation between the predictor and the criterion" (p. 1176, Baron & Kenny, 1986). In other words, a mediator "explains" the relationship between variables. In this sense, the effect of friendship reciprocity on loneliness is passed through the friendship quality and friendship satisfaction variables. As a result, it is the friendship quality and friendship satisfaction variables that carry the buffering power of friendship.

Overall, results from the present research did not lend support to previous findings that both social withdrawal and negative peer status significantly predict loneliness (Boivin & Hymel, 1997; Boivin et al., 1995; Renshaw & Brown, 1993). These earlier findings are based on the notion that children exhibiting socially withdrawn behaviour may be cognitively predisposed to make more negative interpretations of their social worlds (Asendorpf, 1990; Boivin & Hymel, 1997; Rubin et al., 1990; Rubin &

Asendorpf, 1993). In the context of all social variables, results from this study revealed no significant causal pathways between social withdrawal and peer network or dyadic loneliness. Instead, an indirect relationship was found between social withdrawal and perceived loneliness, resulting from a multitude of direct and indirect effects. That is, socially withdrawn behaviour and poor peer acceptance led to the decreased likeliness of having a reciprocated best friend. Having a mutual friendship, in turn, influenced subjective perceptions of quality and satisfaction, and lower perceived quality and satisfaction with one's friendship led to greater feelings of social and emotional loneliness.

Two potential alternative explanations may account for the failure of this research to find direct predictive relationships between social withdrawal, peer acceptance, and loneliness. First, one must consider the context of the measured variables in the current investigation. When one compares the unidimensional loneliness measure (*Loneliness and Social Dissatisfaction Questionnaire*: Asher & Wheeler, 1985) used in previous research with the separate loneliness measures used in the current investigation, beyond the conceptual distinction of these measures, an important difference emerges. The items on the Asher and Wheeler (1985) questionnaire relate directly to their classroom and school contexts. That is, each item makes reference to their class or school. Similarly, the social behaviour and status variables are measured within the classroom context by peers, and thus, are more specific and restrictive in nature. In contrast, the peer network and dyadic loneliness subscales do not make specific reference to school or classroom contexts and hence, are more general measures of loneliness. Therefore, it is plausible that a child who is exhibiting socially withdrawn behaviour and experiencing peer rejection in their current classroom may not be experiencing general feelings of social or emotional loneliness due to potentially more positive social experiences external to the classroom environment. One might then say, why is it that a significant direct causal pathway was found between social withdrawal and social self-perceptions, which is also a more general measure of how one evaluates their social world? The difference lies in the affective nature of the questionnaires. The loneliness questionnaires have a strong affective component, reflecting a "felt" emotional dimension, while the measure of social self-perceptions does not effectively capture this emotion.

Second, it may be that isolating the two components of loneliness using the two smaller subscales may dilute possible direct effects that may emerge using a larger scale. Although this notion is contradictory to the proposed justification for isolating these two components, it is noteworthy that the Asher and Wheeler (1985) loneliness measure is comprised of 16 items, while the subscales used in this investigation are each comprised of only eight items. Considering the small sample size in the present study, if a larger scale for measuring loneliness was utilized, the question arises as to whether the same pattern of non-significant effects would have emerged?

In consideration of previous research, Bukowski et al. (1993) and Nangle et al. (2003) did not find any direct paths linking popularity to loneliness. However, Bukowksi and colleagues did find direct links between popularity and their construct of "belongingness", which was in fact comprised of four items from the Asher and Wheeler (1985) loneliness measure. These items (having lots of friends, not having anyone to play with, being well-liked, and not having any friends) were relatively consistent with items from the Peer Network Loneliness Scale used for the present study. Furthermore, Nangle and colleagues proposed that utilizing the Peer Network and Dyadic Loneliness Scale may result in stronger connections between friendship and dyadic loneliness (than with peer network loneliness), and an emerging link between popularity and peer network loneliness. Therefore, exploring these possibilities in the proposed models was not unprecedented. Although partial evidence was found for the stronger connections between friendship and dyadic loneliness than with peer network loneliness, the current findings did not lend support to the proposed emerging links between popularity and peer network loneliness. Rather, the only direct link to peer network loneliness came from the friendship satisfaction variable, suggesting that friendship has a stronger influence on social loneliness than does peer acceptance. Regardless, further research is warranted to help elucidate the connections between these peer relations and loneliness variables.

In summary, these complimentary hierarchical regression and path analyses for all of the adjustment variables demonstrated a complex array of interrelationships between social behaviour, peer relations, and socioemotional adjustment. While the friendship variables did not appear to mediate the relationship between social withdrawal, peer acceptance, and social self-perceptions for this particular sample and methodology, a mediating role of the friendship variables was observed for the relationship between social withdrawal, peer acceptance, and the two loneliness measures. In light of these findings, further exploration of the mediating role of friendship is warranted.

Friendship and Socioemotional Adjustment of Socially Withdrawn Children

Q5) Are there group and gender differences in friendship quality between withdrawn and "average" (control) children?

There exists a paucity of research that has examined withdrawn children's friendships, and to date, whether the quality of friendships experienced by withdrawn children differs from those of their peers is an empirical question waiting to be addressed (Rubin, Burgess, & Coplan, 2002). The quality of one's friendships has been considered an important variable in the socioemotional adjustment of children, as higher friendship quality is associated with lower levels of loneliness (Bukowski et al., 1993), more positive self-esteem/social self-perceptions and fewer internalizing problems (Rubin et al., 2004), and better overall adjustment (Berndt, 1999; Fordham & Stevenson-Hinde, 1999; Parker & Asher, 1993). Within the peer relations literature examining friendship quality amongst social status groups, it has been found that rejected children report lower levels of friendship quality than their average and more popular peers (Parker & Asher, 1993). Thus, as socially withdrawn children in middle childhood and beyond are viewed negatively by their peers (e.g., poor peer acceptance), it was hypothesized that these children would also experience friendships of poorer quality.

Results from the current investigation supported this hypothesis, indicating that withdrawn children reported significantly lower levels of friendship quality than their control counterparts. However, one must consider the small and uneven cell sizes for this analysis and thus, the cautionary nature of such findings. These results bring into question several important issues. First, do these findings reflect the reciprocal nature of friendships - that is, are the friendships that are being subjectively scrutinized by these children indeed reciprocal friendships, or are they one-sided, and hence likely not to have the same level of quality? Second, what positive influences, if any, would having friendships of higher quality have for these individuals (i.e., with respect to peer perceptions of social behaviour and status and socioemotional adjustment)? Third, what value do these children place on the quality of their friendships versus the perceived presence of a friendship in terms of their overall level of adjustment? For example, perhaps having a friend at all, even if it is unilateral, has a more positive impact than the quality of that friendship. Although these findings remain preliminary and replication with larger samples is necessary, these results do provide new insights into the friendships of socially withdrawn children.

With regards to gender differences in friendship quality, although limited research has been documented, the findings have revealed that girls report higher levels of friendship quality than boys (i.e., more positive features) (Parker & Asher, 1993; Hoza et al., 2000). Consistent with this research, results from the current study also found significant gender differences in friendship quality, with girls reporting higher friendship quality than their male counterparts. Interestingly, despite these gender differences in friendship quality, when research has considered the possible role of gender in the relationships among friendship, peer acceptance, and adjustment, a different pattern has emerged. As the friendships of girls tend to be more intensive and supportive in nature (Rose & Asher, 1999, 2000), one might hypothesize that friendship quality may be more closely linked to adjustment for girls than for boys. Yet, Parker and Asher (1993) found no differences in this relationship, and Erdley et al. (2001) found the opposite, whereby friendship quality uniquely predicted loneliness and depression for boys, but not for girls. As such, further research is needed to help delineate the factors underlying these gender differences and their role in socioemotional adjustment.

Q6) Are there group and gender differences in friendship satisfaction between withdrawn and "average" (control) children?

The exploration of friendship satisfaction has been even more limited in the literature, and a review of these studies suggests that no research to date has considered the friendship satisfaction of socially withdrawn children specifically. Of the three studies reviewed within the peer relations literature that have explored friendship satisfaction, two of these studies focused on the relationship between aggression and this variable (e.g., Dishion, Andrews, & Crosby, 1995; Poulin & Boivin, 1999), and one study considered the friendship satisfaction subjectively experienced by social status subgroups (Parker & Asher, 1993). This latter study found lower mean friendship satisfaction scores reported by low-accepted children, albeit these differences were not significant. The hypothesis for this study was therefore more theoretically than empirically driven, and based on the notion that socially withdrawn children experiencing poor peer acceptance will also be less satisfied with their dyadic relationships.

Results from the present study did not support this hypothesis, finding no significant differences in levels of friendship satisfaction between socially withdrawn and average children. Coupled with the significant findings from the previous analysis regarding friendship quality, these results have several implications. First, it may be that despite reports of lower friendship quality, socially withdrawn children are happy to believe that they have a dyadic friendship, and the perceived presence of that friendship is more important than quality. As such, their level of satisfaction may be more reflective of the presence of that friendship in general rather than specifically a measure of their satisfaction with how the relationship is going. In light of this consideration, the positive influence of unidimensional friendships becomes evident.

Second, when one considers the nonnormal distribution of the friendship satisfaction variable, 73.4% of the children had scores $\geq$ the mean score (4.54/5.00), and 90.5% had scores $\geq$ 4.00. As such, with this significantly skewed distribution and only modest variability amongst scores, it is not surprising that significant differences were not found. Third, considering the low number of items comprising this measure and its comparatively lower reliability, these results call into question both the reliability and validity of the friendship satisfaction measure. Previous research that has considered this variable has used pictoral representations rather than language descriptors for measuring satisfaction, and perhaps this method is more effective for this age group in capturing the complete spectrum of the friendship satisfaction variable. Additional research is necessary to fully understand the nature and importance of the variable of friendship satisfaction, and its' involvement in the friendship adjustment and psychological adjustment of preadolescent children.

Regardless of these issues, if socially withdrawn children do indeed report similar levels of satisfaction with their friendships as their peers, yet the majority of those friendships are nonreciprocated and the quality of those friendships is significantly poorer, it may be that perceived satisfaction with a friendship, regardless of reciprocity and quality, may be the more important issue. In other words, simply having and being happy/satisfied with a perceived friendship may have positive benefits for these children. This is consistent with earlier findings from the path analyses, where friendship satisfaction had unique contributions to loneliness.

With respect to gender differences, Parker and Asher (1993) found that boys generally reported more satisfaction with their friendships than girls, although this difference was nonsignificant. The other two studies that considered this variable included only boys in their sample, and hence did not consider gender differences. Therefore, no hypotheses were made regarding potential gender differences. Consistent with Parker & Asher (1993), this current study did not find any significant gender differences in friendship satisfaction, and in fact, there was very little variability in mean scores across genders. As previously noted, during preadolescence boys place more emphasis than girls on the larger peer group network, while girls consider dyadic relationships to have more importance than peer acceptance (Benenson et al., 1997; Rose & Asher, 1999, 2000). However, a complete understanding of the influence of these different dynamics in terms of their friendship adjustment remains unknown.

Q7) Are there group and gender differences in socioemotional adjustment (as measured by social self-perceptions, peer network loneliness, and dyadic loneliness) between withdrawn and "average" (control) children?

It was hypothesized that there would be significant group differences in these three measures of socioemotional adjustment. Within the social withdrawal research there have been several investigations of the social self-perceptions and/or level of loneliness experienced by these children (Boivin et al., 1989, 1994, 1995; Hymel et al., 1993a; Rubin et al., 1988, 1989b, 1991; Rubin & Mills, 1988), and for the most part consistent findings have been reported, indicating that withdrawn children report higher levels of loneliness and more negative social self-perceptions than their peers. However, none of these earlier studies have considered the two-dimensional nature of loneliness, with components relating to both the larger and more general peer network and a specific relationship dyad. It was this distinction that differentiated the current investigation from other studies of social withdrawal. Such a distinction was considered to be integral for the investigation of the socioemotional adjustment of withdrawn children, as there is much empirical and theoretical support for the importance of simultaneously considering the unique and related effects of both components of peer relations.

The present findings were inconsistent with the previous research that has found socially withdrawn children report higher levels of loneliness and more negative social self-perceptions. Although one must be cautious of overinterpreting nonsignificant results, considering the very small and unequal sample and cell sizes for the current study, a closer examination of the pattern of findings (mean scores) is warranted. Specifically, as noted in earlier research, withdrawn children reported somewhat more negative social self-perceptions than their average peers, albeit these differences were nonsignificant. Perhaps with a larger sample size and more equal cells for conducting these analyses, significant differences would emerge. Furthermore, the reliability of the scale for measuring social self-perceptions was slightly less than desirable (< 0.80). Although numerous other studies have utilized the same subscale (Social Acceptance Subscale from the *Harter Self Perception Profile for Children*) and more than adequate reliability has been demonstrated, for this particular sample, it may not have been as psychometrically sound.

With regards to loneliness, this study is the first of its nature to distinguish between the two distinct but related components of loneliness, reflecting the larger peer group and an individual dyad, respectively. Hoza et al. (2000) emphasized the importance of considering the two-dimensional nature of loneliness, and found empirical support for the use of their measurement tool, the *Peer Network and Dyadic Loneliness Scale*, for measuring these distinct yet related components. Since then, other researchers have alluded to the potential importance of capturing these two components of loneliness (Nangle et al., 2003; Qualter & Munn, 2002). In the present study, although no significant differences were found, a similar pattern emerged, whereby withdrawn children reported higher levels of both peer network and dyadic loneliness. Thus, replication of the current investigation examining both the social and emotional loneliness of withdrawn children utilizing a larger sample size is warranted.

In examining these socioemotional variables, no a priori hypotheses regarding gender differences in these variables were generated. Previous findings have been inconclusive regarding gender differences in socioemotional variables. While some researchers have found greater socioemotional difficulties among withdrawn boys (Hoza et al, 2000; Rubin et al., 1993; Rubin & Stewart, 1996) others have found no gender differences (Renshaw & Brown, 1993), or a stronger correlation between withdrawal and loneliness for girls (Boivin & Hymel, 1997). Although the present study found no significant gender differences or interaction (gender X group) effects, closer examination of the mean scores revealed some interesting patterns. Females generally reported more negative social self-perceptions than males. In contrast, females and males reported very similar levels of peer network loneliness, and males reported higher levels of dyadic loneliness than their female counterparts. Interestingly, withdrawn males reported lower levels of peer loneliness than their control peers, alluding to the notion that withdrawn boys may be less aware (cognizant) of their social relationship difficulties.

When considering the nonsignificant findings, it is also important to take into account the way in which socioemotional adjustment was measured and defined for the purpose of the present study, and the inherent limitations in this definition. For example, while self-report measures do provide valuable insight regarding one's adjustment, socioemotional adjustment is often judged by others (e.g., peers, parents, and teachers) in real-life. This is consistent with Rose-Krasnor's (1997) Prism Model of Social Competence, where assessments from the Self and Other domains are critical. Although friendship nominations and peer assessments of acceptance and behaviour were utilized, others' perceptions of socioemotional adjustment were not considered. Furthermore, the assessment of other measures of adjustment, such as self-perceptions in nonsocial domains, global self-worth, social anxiety, and/or depressive symptomology was not included in this definition. Thus, it may be that the measures utilized in this study to assess socioemotional adjustment did not adequately capture the complete picture for these children, and perhaps a different pattern may have emerged with additional assessment methods and measures.

Q8) Are socially withdrawn children as successful as their average peers in establishing reciprocated best-friendships? More specifically, what proportion of socially withdrawn children has a reciprocated best friendship?

Research has indicated that childhood friendships provide socioemotional benefits beyond peer group acceptance (Rose & Asher, 2000) and are essential for healthy socioemotional adjustment (Hartup, 1992). Yet, not all children have a reciprocal best friendship. Research has found that children who are friendless experience poorer overall adjustment, negative self-perceptions, and increased loneliness (Newcomb & Bagwell, 1996; Parker & Asher, 1993; Renshaw & Brown, 1993). Considering the importance of friendships for adjustment and development, and the evident social difficulties (i.e., rejection) of children who are socially withdrawn, it seems appropriate to investigate the friendship adjustment of these children. According to Hartup (1996), reciprocity is the "essence" of friendship. Thus, when it comes to friendship participation, one must consider the mutual nature of such a relationship. As such, for the present study, of interest was determining how successful withdrawn children are in establishing mutual friendships. It was hypothesized that withdrawn children would be less likely to have a reciprocated best friendship than their peers. This is congruent with the notion that withdrawn children initiate and respond to peer exchanges less often than their peers (Wanlass & Prinz, 1982).

Research that has examined the presence of mutual friendships amongst children with social difficulties has been sparse, particularly in relation to social withdrawal. Much more is known about aggressive children's friendships or the relationship between heterogeneous social status subgroups and friendship reciprocity. Specifically in the social withdrawal literature, Ladd and Burgess (1999) found that *young* (5 – 8 years) withdrawn children had as many reciprocated friendships as their peers and were just as likely to be involved in a mutual very best friendship. Yet, this current review of the literature suggests that no research to date has examined the presence of mutual friendships amongst withdrawn children in middle childhood to preadolescence. Thus, the present study was the first to do just that.

Results were consistent with hypotheses, supporting the notion that withdrawn children are far less likely to be involved in a reciprocated best friendship than their control counterparts. Furthermore, this difficulty appears to be more prevalent amongst withdrawn males. These results have several important implications. To begin with, the fact that withdrawn children do have more difficulty establishing mutual best friendships needs to be addressed specifically in intervention efforts. Establishing friendships and being accepted by peers are related yet distinct phenomena and thus intervention efforts need to recognize the unique contributions of each of these peer relationship components. Previous intervention efforts have focused primarily on social skills training to assist children with social difficulties (Rubin et al., 2002), but perhaps more specific interventions aimed at the necessary skills for establishing and maintaining friendships would be more appropriate. In addition, in consideration of the previous research questions concerning the unique contributions and potential mediating effects of the friendship variables, it is evident that friendship reciprocity is indirectly related to loneliness. Thus, the possibility arises that if efforts were made to help withdrawn children to experience greater success in establishing and maintaining friendships, this may have significant effects on their overall adjustment.

Q9) Are there differences in socioemotional adjustment (as measured by social self-perceptions, peer network loneliness, and dyadic loneliness) between socially withdrawn children with and without a reciprocated best friend?

It has been proposed that having a mutual friend may buffer against the negative effects of peer rejection (Erdley et al., 2001, Hodges et al., 1999; Sullivan, 1953). For socially withdrawn children who are typically rejected by their peers, the question arises as to whether such a buffering effect may exist. Previous research has demonstrated that low-status children (although not socially withdrawn children in particular) without friends reported greater loneliness than low-status children with two or more friends (Renshaw & Brown, 1993). Furthermore, Bukowski et al. (1993) found a significant negative relationship between having a mutual friend and level of loneliness.

Results from the current investigation found no significant differences in the socioemotional adjustment of withdrawn children with and without a reciprocal best friend. The nonsignificance of these findings suggests that having a reciprocated best friend fails to provide any socioemotional benefits over not having a reciprocated best friend. Several possibilities come to mind to account for these nonsignificant findings. First, one must consider the very small sample of withdrawn children derived from the participants in this study. When using MANOVA it is critical that the number of cases/cell exceeds the number of dependent variables (Tabachnik & Fidell, 1996). Yet, the ratio for one of the cells in this analysis was very close to 1:1, thus the chances of finding significant results were quite limited. It is highly possible that replication of this procedure using a significantly larger sample and more equal cell sizes would produce significant findings. Second, it may be that unilateral friendships provide just as many positive benefits (i.e., buffering effect) as reciprocal friendships for these children, and it may be that the "perceived" presence of a friend is all that matters. Third, it may be that the negative effects of poor peer acceptance are more prominent, and as such, friendships have little "pull" in altering these negative influences. Finally, as mentioned previously, one must also consider the inherent limitations in how socioemotional adjustment was measured and defined for the purpose of this study.

On the other hand, it is still important to provide some insight for the emerging pattern of findings. Mean score differences revealed that withdrawn children with reciprocated friendships reported more negative social self-perceptions than their counterparts without a mutual best friend. Possible reasons for this are twofold. First, the measure used to represent social self-perceptions was a more general measure of social acceptance and competence, while a mutual friendship reflected a specific relationship involving just one individual. Thus, the benefits from having a mutual best friend may not be generalized to one's perception of their social success within their larger peer network. This idea supports the distinctness of these two components of peer relations. Second, while they reported a reciprocated best friendship, this friendship may have reflected the "ideal" friendship that they would like to have. Perhaps, their awareness of this notion of an "actual" versus "ideal" friendship enhances their feelings of social failure, as they see themselves as unsuccessful in establishing desirable relationships. Third, perhaps this friendship is with another child who is also socially unsuccessful (i.e., within the larger peer network), thus validating their negative social self-perceptions.

In contrast to social self-perceptions, mean score differences revealed that withdrawn children with reciprocated best friendships reported lower levels of peer network and dyadic loneliness. This pattern sheds light on the potential "buffering" nature of children's friendships. Particularly, these findings suggest that the presence of a reciprocated best friendship may in fact play a beneficial role in decreasing the feelings of loneliness experienced by withdrawn children. Replication with a larger sample may reveal significant group differences with respect to these measures of loneliness.

Q10) Are there differences in friendship quality between socially withdrawn children with and without a reciprocated best friend?

Research that has examined the quality of reciprocated versus nonreciprocated friendships has found that reciprocated friends display higher levels of friendship quality (Bukowski et al., 1993, 1994b; Newcomb & Bagwell, 1996). Although exploratory in nature, it was anticipated that withdrawn children with a reciprocated best friendship would report higher levels of friendship quality than withdrawn children without a mutual best friend. Despite the absence of empirical support for this hypothesis, theoretically, it seems logical to assume that friendships that are reciprocated would be of greater quality and comprised of more positive and fewer negative characteristics. This is based on the idea that friendship reciprocity directly influences quality, thereby making reciprocity a necessary prerequisite for quality. Despite the small sample size, empirical support was found for this assumption. Withdrawn children with a reciprocated best friendship did report significantly higher levels of friendship quality then their counterparts without a mutual best friend. Once again, the question regarding the buffering nature of very positive friendships on the socioemotional adjustment of these children arises. Although earlier results (Q9) did not reveal any significant differences, the pattern of results found for the loneliness variables does not eliminate this possibility. Furthermore, results from the exploratory path analysis presented earlier in this chapter revealed an indirect effect of friendship quality on peer network loneliness (via friendship satisfaction) and direct influences of friendship quality on dyadic loneliness, suggesting that the relationship between these variables cannot be overlooked. Together, these findings allude to the importance of the need for replication of this study in future research.

One must also consider possible reasons for the current findings, whereby differences in friendship quality were not associated with similar differences in socioemotional adjustment. Perhaps an important piece of the puzzle is missing: the value these children place on friendships. Higher friendship quality may have limited influence on the socioemotional adjustment of these children if they place less value on the presence and quality of their friendships than on their social successes/failures (behaviour and status) within the larger peer group. Only one study to date (Martin, Cole, Clausen, Logan, & Strosher, 2003) has explored friendship value and its influence on socioemotional adjustment (depression). These researchers found that unpopular children who placed more value on friendship experienced higher levels of depression. The participants for this component of the present study were classified as both unpopular and socially withdrawn. Perhaps for these particular children, social failure had a more powerful and prominent influence on their adjustment than having a friend and the quality of that friendship. Or, as mentioned previously, if this friendship, despite its level of quality, was not a desired friendship (i.e., they wish to be friends with a different child), its presence may have little influence on their social feelings about themselves. In any case, these findings have important implications for the nature and utility of interventions (e.g., cognitive reframing) for socially withdrawn children.

Q11) Are there differences in levels of friendship satisfaction between socially withdrawn children with and without a reciprocated best friend?

Also exploratory was the investigation of potential differences in friendship satisfaction between withdrawn children with and without a reciprocated best friend. As with quality, it seemed plausible to assume that reciprocity will play an important role in reported friendship satisfaction. Results from the present study failed to support this notion. Once again, it is necessary to consider the very small and unequal cell sizes in these analyses and their likely influence on the findings. In addition, as discussed previously, the nonnormal distribution of the friendship satisfaction variable and very modest variability of scores were likely influential in the nonsignificant findings. Furthermore, it may be the perception of having a friend that leads to satisfaction with that friendship, rather than its reciprocal nature. As such, further research into the effects (positive and negative) of having a unilateral friend is necessary.

Q12) What are the behavioural and socioemotional characteristics (identity) of the friends selected by socially withdrawn children?

Research on childhood friendships has focused on specific friendship attributes (i.e., quantity, quality, and/or reciprocity), but has directed little attention towards the types of peers that children choose to befriend. According to Hartup (1996), the identity of friends may be more significant for emotional development than the mere presence or absence of a friend. Even folklore recognizes the significance of the company one keeps: Birds of a feather flock together (La Greca & Prinstein, 1999). Furthermore, the similarity-attraction hypothesis implies that individuals with similar attributes will be drawn to each other (Byrne & Nelson, 1965, in Kupersmidt et al., 1995).

Behavioural similarities between friends become particularly significant during preadolescence and adolescence (Hartup, 1983, in Kupersmidt et al., 1995). Some research has demonstrated that withdrawn children seek other withdrawn children as friends (Kupersmidt et al., 1995), friends receive more similar peer ratings of social withdrawal than nonfriends (Haselager et al., 1995, in Hartup, 1996), and low accepted children are more likely to be friends with other low-accepted children than their more competent peers (Parker & Asher, 1989, 1993). In contrast, other research has shown that rejected children are not more likely to be friends with rejected peers (Ray et al., 1997). Beyond behavioural attributes, limited research with middle-childhood/preadolescent samples has investigated the socioemotional adjustment of children's friends, and whether children experiencing socioemotional distress are more likely to associate with other children experiencing similar distress.

The qualitative exploration of the identity of friends selected by withdrawn children produced some noteworthy findings. Particularly, in terms of behavioural similarity, the similarity-attraction hypothesis did not hold, as more than half (11/20) of the withdrawn children selected as their best friends children who were very different from themselves in terms of social behaviour and peer status (i.e., nonwithdrawn and popular), and only one of these friendships was actually reciprocated. The findings suggest that these "friends" may represent the "type" of person that the withdrawn children either aspire to be like or wish to hang out with. Furthermore, as all but one of these friendships were unreciprocated, these findings call into question the behavioural and sociometric differences between reported best friendships and the peers that these withdrawn children actually hang around with. With regards to the latter, it may be that the notion of behavioural similarity is relevant for these companions. As such, additional research exploring the behavioural characteristics of the friends of withdrawn children, incorporating self-reports as well as behavioural observations and other reports (i.e., peers, teachers), will enrich understanding of the company that these children keep, and the influence that such company may have on overall adjustment.

In terms of socioemotional adjustment, the majority of peers selected as friends by the withdrawn children reported poorer socioemotional adjustment across at least two of the three outcome measures. An important implication of these findings prevails. That is, if withdrawn children do indeed tend to select friends with socioemotional difficulties, it will be important for future research to examine the effect these friends may have on the behavioural and socioemotional adjustment of withdrawn children. In terms of intervention, the influence of these friends and their characteristics may undermine efforts geared towards helping withdrawn children by acting to reinforce and enhance the difficulties experienced by withdrawn children.

Implications of this Research

Based on this review of the literature, there exists no research that has examined the friendships of socially withdrawn children, or considered the influence of both peer group and friendship experiences on the relationship between social withdrawal and adjustment. The uniqueness of the present research lies in its attempt to address these issues. Despite inherent limitations, the findings from this study have noteworthy implications for those involved with children who are socially withdrawn, including psychologists, teachers, and parents.

First, this study demonstrates the importance of considering both peer and friendship experiences simultaneously when examining the socioemotional adjustment of withdrawn children. While previous research has established the connection between social withdrawal and peer acceptance, the results from the present study extend that research, suggesting that it is significantly more difficult for socially withdrawn children to establish reciprocal friendships, and the friendships that they do establish are of lower quality than their peers. Although the preliminary findings from this study are limited regarding the potential impact of friendship experiences on socioemotional adjustment, they do suggest important connections between these variables that have previously been disregarded. Evidently, by neglecting to consider the friendship experiences of socially withdrawn children, one is missing an important piece of the puzzle. Moving beyond the peer group and considering the dyadic networks of these children enhances understanding of the multitude of difficulties faced by this population, increases the window of opportunity for intervention, and will ultimately lead to the development of a risk and resiliency model for social withdrawal.

Second, from a clinical perspective, results from the current study suggest that intervention efforts geared towards friendship adjustment, including skills necessary for establishing and maintaining friendships, developing close mutual friendships, as well as for improving the quality of friendships, may be more prudent than focusing on improving peer acceptance (Schneider et al., 1994). Much of the intervention research has focused on social skills training to improve sociometric status, with little success, and minimal consideration has been given to whether or not such social skills training interventions help socially incompetent children with making and maintaining friendships (Asher et al., 1996). In fact, researchers remain naïve to an understanding of the necessary skills for friendship adjustment (Rubin et al., 1998). Thus, a new generation of social skills training is necessary to foster both group acceptance and friendship.

A "social tasks" framework for friendship competence has been proposed by Asher et al. (1996), outlining 10 social tasks (attributes) that children may need to bode well in making friends and having friendships of better quality (e.g., being an enjoyable and resourceful companion, expressing caring and concern, being able to forgive). Rose and Asher (1999), in their examination of one of these tasks, managing conflict, advocated that a "social tasks" perspective provides a useful framework from which to increase friendship adjustment. Perhaps redirecting and refocusing attention to improving the skills necessary for experiencing success in friendships will have greater success than typical social skills training. As such, the potential for the presence and quality of friendships to act as an emotional "buffer" against the negative influences of peer rejection may further guide intervention efforts for socially withdrawn children.

Furthermore, findings in this study suggest that there may be some utility for cognitive interventions (i.e., cognitive reframing/restructuring) with socially withdrawn children. For example, although withdrawn children with a reciprocated best friendship reported higher levels of friendship quality, this did not have a positive impact on their socioemotional adjustment. In addition, friendship satisfaction was found to be an important variable influencing adjustment. Thus, perhaps helping children to emphasize the positive aspects (friendships) and de-emphasize the negative aspects (poor peer acceptance) of their peer relationships may be an effective coping strategy.

Beyond specific intervention efforts, this shift from focusing on peer acceptance to friendship adjustment may also be applicable to the classroom. Socioemotional growth and development provide the foundation for academic and personal growth, and school curriculums, through their focus on interpersonal respect and acceptance, try to foster this growth within their classrooms and schools. However, within many schools it appears that the development of close mutual friendships remains more of an independent, individual task, and less attention is given towards fostering and nurturing intimate friendships. Perhaps a greater emphasis on children's friendship experiences within the classroom, school, and community will lead to more positive experiences and psychological adjustment for all children.

Finally, these results highlight the importance of including measures of peer acceptance and friendship adjustment, and their unique contributions to socioemotional adjustment (e.g., dyadic versus peer network loneliness) in all clinical assessments to better understand the complex world of each child. A more thorough understanding of a child's experiences (perceived and observed) in both relationship contexts will lead to the development of interventions that are individually tailored to the specific needs of each child.

Directions for Future Research

Each new study within the peer relations literature provides significant contributions to an expanding body of research. In particular, research that considers the simultaneous examination of sociometry, social behaviour, and friendships is invaluable, especially within the middle-late childhood/preadolescent age where the effects of the peer group and dyadic relationships are most prevalent. Findings from the current study provide some support for the potential mediating effect of friendship adjustment on socioemotional adjustment, yet are unable to clearly demonstrate that simply having a reciprocated best friend has significant positive effects for socially withdrawn children. Evidently, while this study revealed distinct patterns of relationships between social withdrawal, peer acceptance, friendship reciprocity, friendship quality, friendship satisfaction, and measures of socioemotional adjustment, more research is needed to clarify the role that friendships play in the socioemotional adjustment of withdrawn children. Thus, several important questions remain unanswered and replication of this study with larger and more diverse samples is warranted. Perhaps then the development of a risk and resiliency model may be possible that would better explain the complex nature of social withdrawal in terms of various social and adjustment outcomes and other potential protective factors that may be influential.

When considering the influence of friendship in its entirety, a more comprehensive representation of friendship adjustment, beyond the three components of friendship that were examined in the current study, is essential. Researchers have alluded to the importance of considering friendship quantity (i.e., the total number of friends) in order to fully understand the influence of friendship on adjustment (Bukowski & Hoza, 1989, Hartup, 1996). Supporting this argument, Erdley et al. (2001) found that friendship quantity has unique contributions to adjustment. Similarly, Nangle et al.'s (2003) findings support the cumulative positive effects of friendship, suggesting that friendship may indeed be a continuous construct that is comprised of different levels of relationships, all of which contribute to adjustment. In a study examining the relationship between popularity and depressive symptomology, Martin et al. (2003), found that for unpopular children, placing a greater value on friendships uniquely predicted higher levels of depressive symptoms. As such, the value placed on friendships may be an important piece of the puzzle missing from this study. Finally, although friendships are defined on the basis of mutuality, the potential positive effects of "perceived" (i.e., unilateral) friendships on adjustment remain unexplored. Future research that affords a more comprehensive examination of friendship variables will provide greater insight into the potential buffering effects of friendship, and the conditions necessary for this to occur.

Despite the limited exploration of gender differences permitted by the present study due to sample size, further examination of the role of gender in the relationship between social withdrawal, peer acceptance, friendship adjustment, and socioemotional adjustment will be critical for better understanding the psychological experiences of socially withdrawn children, tailoring interventions to meet individual needs, and determining risk and resiliency factors.

Much of the intervention research within the peer relations literature, and for socially withdrawn children in particular, has been directed towards improving peer acceptance via social skills training (Rubin et al., 2002). Yet, the findings from more recent research, including the current study, emphasize the need for more comprehensive intervention efforts and treatment research directed towards improving children's friendship experiences (Asher, Parker, & Walker, 1996; Erdley et al., 2001; Hoza et al., 2000; Nangle et al., 2003; Parker & Asher, 1993). Findings from the current research lend support for this shift in treatment approach. Specifically, strategies for increasing socially withdrawn children's friendship networks and friendship quality, such as coaching children to understand the qualities that are important for establishing and maintaining positive friendships, may have a profound influence on their friendship experiences and socioemotional adjustment. Therefore, research that examines the treatment efficacy of such approaches is warranted.

Limitations of this Research

There are several limitations that are evident based on the design of this study. The most obvious limitation is the small sample size obtained due to the low participation rate. This reflects a combination of two underlying issues: the school climate at the time of data collection (i.e., teacher's strike) and people's sensitivity to peer assessment methods leading to difficulty in gaining school and parental consent. Sociometric peer assessment methods are associated with reluctance to participate (Iverson, Barton, & Iverson, 1997), despite empirical evidence demonstrating the absence of negative effects of such procedures (Bell-Dolan, Foster, & Sikora, 1989; Bell-Dolan & Wessler, 1994; Iverson & Iverson, 1996; Iverson, Barton, & Iverson, 1997). Furthermore, low participation rates tend to be particularly prevalent for unpopular children (Iverson & Iverson, 1996), and it was these children who were the primary target for the present study. Ultimately, this small sample size decreases the power of the analyses while leaving the reliability of these findings in question, and a larger sample size would have enhanced the strength of these findings for the interrelationships amongst all variables.

Another limitation is the potential for bias in self-reports and peer assessments and the reliability of such measures. Issues such as responding in a socially desirable manner (Pepler & Craig, 1998), denying socioemotional feelings, which is not uncommon amongst children demonstrating difficulties with peer relations (Landau & Milich, 1990), and child or situational variables (Younger & Boyko, 1987) may all influence self and peer reports. Furthermore, the stability of peer perceptions and their resistance to behavioural changes may also be a factor (Hymel et al., 1990b, Pepler & Craig, 1998). With regards to reliability, particularly for the social self-perception and friendship satisfaction measures, the Cronbach alphas were lower than desirable (<0.80), calling into question the reliability of these measured variables. In addition, due to time constraints, the self-report data was collected across the two different testing sessions. As such, temporal factors such as mood may have influenced the accuracy and consistency of self-report measures (i.e. self-reports reflect children's feelings at that particular moment in time). Given that the present research relied on peer and self-reports, a multimethod assessment approach in future research combining several additional techniques (e.g., adult reports, observations) would likely decrease the effects of potential bias and increase the reliability of the findings. This has particular relevance for the assessment of socioemotional adjustment, as despite the validity and utility of self-reports, realistically it is often other individuals (i.e., parents, teachers, peers) who are assessing or judging socioemotional adjustment.

A third limitation is the restriction of best friendships to within the classroom setting and participating children only, thereby excluding any reciprocated best friendships beyond these contexts. Children's best friendships with other participating classmates were the sole focus of this study, yet many children who do not have close friends in their classroom may have a close (and possibly reciprocated) friend in another class (or a non-participating classmate), another school, or the community. Thus, this restriction placed on best friendships precludes any conclusions to be drawn regarding the presence and impact of best friendships.

When discussing limitations, one must also consider the cut-off criterion used to classify children as "withdrawn" and "control" for this study. Parker & Asher (1993) recommend a z-score of -1.00 as a ceiling for identifying poor peer acceptance. While it was necessary in this study to use a less stringent criterion (-0.50) for identifying unpopular/withdrawn and average children to maximize subgroup sizes, this inevitably presents a significant limitation, as the subgroup differentiation is far less extreme, thus confounding potential differences in socioemotional adjustment.

A final limitation involves the generalizability of these results to more diverse samples and populations. It is likely that other interpersonal (i.e., victimization, number of friends, and friendships beyond the classroom), intraindividual (e.g., friendship value, unilateral friendships, global self-worth, IQ, LD, and ADHD), and temporal (e.g., maintaining friendships, chronicity of peer difficulties) processes are operative that were not included in this study and hence, should be explored in future research. Similarly, a homogeneous classification of social withdrawal was utilized, which is inconsistent with current research supporting the two-dimensional nature of social withdrawal, and therefore belies the heterogeneous nature of this group of children. Furthermore, the use of a cross-sectional design where data was collected at a single point in time, rather than a longitudinal design, precludes the establishment of direct causal relations and potential bi-directional influences between socioemotional adjustment, friendship, peer status, and social withdrawal (Berndt, 1996).

Conclusion

The present research was predicated on the belief that the optimal investigation of children's peer relations and social difficulties involves the simultaneous examination of two conceptually and empirically related yet distinct components: peer group networks and dyadic friendships. Further, it is the developmental period of pre-adolescence in particular, which bridges the influences of these two contexts. Central to this investigation was the notion that different forms of peer relationship adversity (poor peer acceptance and friendship adjustment) are uniquely and directly linked to socioemotional adjustment. Although the present findings only partially supported this hypothesis, they do provide some insight into the complex interrelationships between social withdrawal, peer acceptance, friendship experiences, and socioemotional adjustment. In addition, this study establishes preliminary support for the importance of considering both peer group and friendship experiences simultaneously when examining the relationship between social withdrawal and adjustment. While the results of the present study are encouraging and strengthen the social withdrawal literature, many gaps remain, providing the impetus for future research.

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Appendix A: Information Letter to Principals/Teachers

Dear Principal/Teacher:

My name is Andrea Mott and I am a Doctoral student in School Psychology at the University of Alberta. As part of my Ph.D. program requirements, I am conducting a research project, under the supervision of Dr. Henry Janzen, to explore the relationship between social withdrawal, friendship, and socioemotional adjustment in children. Social and emotional education provides the foundation for educational success and this research is a means for further promoting social and emotional learning in your school. (As part of the initial stages of this study, I am requesting permission to join you and your teaching staff at one of your staff meetings to discuss the nature of this research project in detail.) A brief description of the research procedures is provided in the following paragraph.

Children in grades four, five and six will complete a variety of group-administered questionnaires about themselves and their peers that tap perceptions of peer social behaviour, how much they like to be with their classmates, friendships, and their feelings regarding their peer relationships. These procedures will take a total of approximately 1.5-2 hours of classroom time, divided across two sessions. You should be aware that even if you give your permission, you are free to withdraw at any time for any reason and without penalty. Participation in this study will involve some risk, as some students may talk with each other regarding their ratings. However, steps are going to be undertaken before, during and after the peer rating exercise to make this process a positive experience. All of the information in the questionnaires will be treated confidentially. With the exception of the researcher, no one (i.e., teachers, parents, or children) will have access to the completed questionnaires. In addition, the names of participating schools will remain anonymous, random numerical codes rather than names will be used for analyzing data, and only group results will be reported in publications/presentations. The raw data will be stored in a locked filing cabinet accessible only by the researcher and destroyed upon completion of the study.

We hope that you will consider your classroom's (school's) participation. We have found that children really enjoy these activities and learn from them. A copy of the research findings may be provided upon request. The results of this study have a long-range goal of contributing to our knowledge of how different levels of social interaction (e.g., peer group, mutual friendships) influence social behaviour and emotions. Social and emotional learning is the foundation upon which educational success is built and this study represents one method for promoting the significance of social and emotional education in your school. Please feel free to contact the researcher at 492-3746(office) or the supervisor (Dr. Henry Janzen) at 492-3746 if you have any questions or concerns.

Thank you for your cooperation and assistance.

Sincerely,

Andrea Mott, M. Sc.
Ph.D. Candidate
University of Alberta

Henry L. Janzen, Ph.D.
Director of Clinical Services
University of Alberta

Appendix B: Consent Form for Principals/Teachers

I, ______________________________(principal/teacher) hereby give consent for my (school/classroom)______________________________to participate in the research project being conducted by Andrea Mott exploring the relationship between social withdrawal, friendship, and socioemotional adjustment in children. (I understand that such consent means that I will permit Andrea Mott to join my staff during a staff meeting to discuss her research project.) I understand that such consent permits Andrea and her research assistants to collect and analyze data provided by the children for whom parental permission is obtained (in the participating grades four, five, and six classrooms) in my grade __________classroom. I am aware that this will involve the group administration of a collection of questionnaires that will take approximately 1.5-2 hours in duration, divided over two visits to my (each) classroom. I understand that participation in this study may be terminated at any time by my request or at the request of the investigator and participation and/or withdrawal from this project will not adversely affect me in any way. I understand that this study will involve some risk, as some students may talk to each other regarding their ratings. However, I understand that steps are going to be undertaken before, during and after the peer rating exercise to make this process a positive experience. I understand that the responses will be obtained anonymously and kept in strictest confidence. I understand that only group data will be reported in any published reports and names of children or participating schools will not be reported.

I am aware that if I have any questions or concerns I can contact the researcher at 492-3746(office) or her supervisor (Dr. Henry Janzen) at 492-3746.

____
(Date)

____
(Signature of Principal/Teacher)

____
(Printed Name of Principal/Teacher)

Appendix C: Information Letter to Parent(s)/Guardian(s)

Dear Parent(s)/Guardian(s),

Your child and his/her classmates have been selected to participate in a research study being conducted by the University of Alberta exploring the relationship between social withdrawal, friendship, and socioemotional adjustment in middle childhood/preadolescence. This project is being conducted by Andrea Mott, a Doctoral student in School Psychology, under the supervision of Dr. Henry Janzen, in partial fulfillment of her Doctoral degree requirements. The study has received general approval by the _______________ School Board and the principal of your child's school. Social and emotional education provides the foundation for educational success and this research is a way to further promote social and emotional learning in your school. Children in grades four, five, and six have been selected for this study. This is a group project that will not involve deception, "singling out", or identifying any individual child. You may withdraw from participation at any time without adversely affecting your request for or receipt of other services from the school board/university.

Children will be asked to complete confidential questionnaire booklets that will provide information about their classmates regarding their social behaviour and how much they like to be with their classmates. They will also be asked confidentially to answer questions in these booklets about their relationship with a close friend. In addition, they will answer some questions about how they feel about their peer relationships. All questionnaires will be group administered during regular classroom time over two sessions, each of approximately 45-60 minutes, for a total of 90-120 minutes. Children's responses will be held in strictest confidence and only the researcher will have access to the names (which will be random numerically coded) and the information collected (i.e., questionnaires will not be shared with anyone). The results from this study will be utilized for completing a thesis, writing in scholarly journals, and presenting to other professionals. However, no identifying information will be used; the names of participating children and schools will remain anonymous. A summary of my findings will be available to you upon request. Participation in this study may involve some risk, as after the completion of the questionnaires (although children do not have access to the completed questionnaires and their specific responses are not shared or discussed during the study) some children may talk to each other regarding their responses (e.g., at recess). However, the researcher will talk with children about the importance of confidentiality, respect, personal belonging, and kindness and generosity. In addition, children will be engaged in self-reflection and self-awareness by thinking about their relationships/feelings and the behaviours/feelings of their peers. School staff will be encouraged to continue the social and emotional learning begun by this research project throughout the school year(s). All information (questionnaires) will be destroyed upon completion of the study.

We hope that you will permit your child to participate as we have found that children really enjoy these activities and learn from them. The social benefits that exist for your child and his/her school community far outweigh any potential negative consequences (e.g., self-reflection, a sense of belonging, self/other awareness in peer interaction/relationships, accepting/respecting individual differences). The results of this study have a long-range goal of contributing to our knowledge of how different levels of social interaction (e.g., peer group, mutual friendships) influence social behaviour and emotions. Further, social and emotional learning is strongly associated with educational achievement and this study represents one method for promoting the significance of social and emotional education. Please feel free to contact the researcher at 492-3746(office) or the supervisor at 492-3746 if you have any questions or concerns.

Thank you so much for your cooperation and assistance.

Sincerely,

Andrea Mott, M. Sc.
Ph.D. Candidate
University of Alberta

Henry L. Janzen, Ph.D.
Director of Clinical Services
University of Alberta

Appendix D: Consent Form for Parent(s)/Guardian(s)

I wish for my child, ________________________________, to participate in this research project.

YES ______ (Please complete the consent form below)
NO ______

I, ________________________________ (parent/guardian) give permission for my child ________________________________to participate in the research study being conducted by Andrea Mott, a Doctoral Student at the University of Alberta. I am aware that the purpose of this project is to explore children's social behaviour, social relationships, and their feelings about these relationships. I am also aware that all information will remain confidential and no names (child or school) will be identified in the results of this research, which will be used for completing a research thesis, writing in scholarly journals, and for presentations to professionals. I understand that this study is in addition to the regular school program and will take approximately 90-120 minutes of classroom time. I understand that there are minimal risks for my child resulting from his/her participation in this study and there are supports in place to make this a process a positive experience. I am also aware that I am free to withdraw my consent and terminate my child's participation at any time without any adverse consequences. I understand participation and/or withdrawal from this project will not affect my request for or receipt of other services from the school board or the university. I understand that all of the information collected in the questionnaires will be stored in a locked filing cabinet accessible only by the researcher and destroyed upon completion of the study.

I am aware that if I have any questions or concerns I may contact the researcher at 492-3746(office) or her supervisor (Dr. Henry Janzen) at 492-3746.

________________________________	________________________________
(Signature of Parent/Guardian)	(Signature of Parent/Guardian)
________________________________	________________________________
(Date)	(Date)

Appendix E : Peer Assessment Questionnaire

WHAT ARE MY CLASSMATES LIKE?

Classmate's Name________________________Boy or Girl (circle which)

***Rate Each of Your Classmates on Every Item**

SAMPLE SENTENCE

This person tells funny jokes	YES	yes	sometimes	no	NO

---

1. This person I like to be with.	YES	yes	sometimes	no	NO
2. This person is very shy.	YES	yes	sometimes	no	NO
3. This person would rather play alone than with others.	YES	yes	sometimes	no	NO
4. This person's feelings get hurt easily.	YES	yes	sometimes	no	NO
5. This person is usually sad.	YES	yes	sometimes	no	NO
6. This person is often left out.	YES	yes	sometimes	no	NO
7. This person can't get others to listen.	YES	yes	sometimes	no	NO
8. This person has trouble making friends.	YES	yes	sometimes	no	NO

Appendix F: Social Acceptance Subscale of the Harter's Self-Perception Profile for Children

WHAT I AM LIKE?

Answer these questions about YOURSELF.

SAMPLE SENTENCE

Really true for me	Sort of true for me				Sort of true for me	Really true for me
☐	☐	**Some kids would rather play outdoors in their spare time**	**BUT**	**Other kids would rather watch T.V.**	☐	☐

☐	☐	**Some kids find it *hard to* make friends**	**BUT**	**Other, kids find it's pretty *easy* to make friends.**	☐	☐
☐	☐	**Some kids have a lot of friends**	**BUT**	**Other kids don't have very many friends.**	☐	☐
☐	☐	**Some kids would like to have a lot more friends**	**BUT**	**Other kids have as many friends as they want.**	☐	☐
☐	☐	**Some kids are always doing things with a lot of kids**	**BUT**	**Other kids usually do things *by themselves.***	☐	☐
☐	☐	**Some kids wish that more people their age liked them**	**BUT**	**Other kids feet that most people their age do like them.**	☐	☐
☐	☐	**Some kids are *popular* with others their age**	**BUT**	**Other kids are *not* very popular.**	☐	☐

Appendix G: Friendship Quality Questionnaire

Think about your friendship with _______ .

1. ___________ and I live really close to each other.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

2. ___________ and I always sit together at lunch.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

3. ___________ and I get mad at each other a lot.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

4. ___________ tells me I'm good at things.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

5. If other kids were talking behind my back, ___________ would always stick up for me.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

6. ___________ and I make each other feel important and special.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

Appendix G: Continued

7. ___________ and I always pick each other as partners.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

8. If ___________ hurts my feelings, ___________ says "I'm sorry".

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

9. I can think of some times when ___________ has said mean things about me to other kids.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

10. I can always count on ___________ for good ideas about games to play.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

11. If ___________ and I get mad at each other, we always talk about how to get over it.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

12. ___________ would still like me even if all the other kids didn't like me.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

Appendix G: Continued

13. ___________ tells me I'm pretty smart.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

14. ___________ and I are always telling each other about our problems.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

15. ___________ makes me feel good about my ideas.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

16. When I'm mad about something that happened to me, I can always talk to ___________ about it.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

17. ___________ and I help each other with chores or other things a lot.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

18. ___________ and I do special favours for each other.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

19. ___________ and I do fun things together a lot.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

Appendix G: Continued

20. ___________ and I argue a lot.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

21. I can always count on ___________ to keep promises.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

22. ___________ and I go to each other's house after school and on weekends.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

23. ___________ and I always play together at recess.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

24. When I'm having trouble figuring out something, I usually ask ___________ for help and advice.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

25. ___________ and I talk about the things that make us sad.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

Appendix G: Continued

26. ___________ and I always make up easily when we have a fight.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

27. ___________ and I fight.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

28. ___________ and I always share things like stickers, toys, and games with each other.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

29. If ___________ and I are mad at each other, we always talk about what would help to make us feel better.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

30. If I told ___________ a secret, I could trust ___________ not to tell anyone else.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

31. ___________ and I bug each other.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

Appendix G: Continued

32. __________ and I always come up with good ideas on ways to do things.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

33. __________ and I loan each other things all the time.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

34. __________ often helps me with things so I can get done quicker.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

35. __________ and I always get over our arguments really quickly.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

36. __________ and I always count on each other for ideas on how to get things done.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

37. __________ doesn't listen to me.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

38. __________ and I tell each other private things a lot.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

Appendix G: Continued

39. __________ and I help each other with schoolwork a lot.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

40. I can think of lots of secrets __________ and I have told each other.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

41. __________ cares about my feelings.

Not at all true	A little true	Somewhat true	Pretty true	Really true
0	1	2	3	4

Appendix H: Friendship Satisfaction Questionnaire

WHAT IS MY FRIENDSHIP LIKE?

My friendship with ________________________________

How is this friendship going?

EXCELLENT				**TERRIBLE**
5	**4**	**3**	**2**	**1**

How happy are you with this friendship?

VERY HAPPY				**NOT HAPPY AT ALL**
5	**4**	**3**	**2**	**1**

Appendix I: Peer Network and Dyadic Loneliness Scale

HOW DO I FEEL?

Answer these questions about YOURSELF.

SAMPLE SENTENCE

Really true for me	Sort of true for me				Sort of true for me	Really true for me
☐	☐	**Some kids would rather play outdoors in their spare time**	**BUT**	**Other kids would rather watch T.V.**	☐	☐
☐	☐	**Some kids feel like they really fit in with other kids.**	**BUT**	**Other kids don't feel like they fit in very well with other kids.**	☐	☐
☐	☐	**Some kids almost always feel left out when they're with others their age.**	**BUT**	**Other kids almost never feel left out when they're with other theirs age.**	☐	☐
☐	☐	**Some kids hardly ever feel accepted by others their age.**	**BUT**	**Other kids feel accepted by others their age most of the time.**	☐	☐
☐	☐	**Some kids really feel like they're part of a group.**	**BUT**	**Other kids feel they're not really part of a group.**	☐	☐
☐	☐	**Some kids are often bored when they're with other kids.**	**BUT**	**Other kids are hardly ever bored when they're with other kids.**	☐	☐
☐	☐	**Some kids usually have other kids to do things with.**	**BUT**	**Other kids hardly ever have kids to do things with.**	☐	☐

Appendix I: Continued

Really true for me	Sort of true for me				Sort of true for me	Really true for me
☐	☐	Some kids feel like most kids like them.	BUT	Other kids feel like hardly any kids like them.	☐	☐
☐	☐	Some kids feel lonely a lot because they wish other kids included them in more things.	BUT	Other kids don't feel lonely very much because they think other kids usually do include them in things.	☐	☐
☐	☐	Some kids have a friend that is always there for them when they need it.	BUT	Other kids don't have a friend that is always there for them when they need it.	☐	☐
☐	☐	Some kids have someone their age who is a really close friend.	BUT	Other kids don't have anybody their age who is really a close friend.	☐	☐
☐	☐	Some kids wish they had a friend who really cared about how they feel inside.	BUT	Other kids feel like they already do have a friend that really cares about how they feel inside.	☐	☐
☐	☐	Some kids don't have a friend that they can talk to about important things.	BUT	Other kids do have a friend that they can talk to about important things.	☐	☐
☐	☐	Some kids don't have anyone special their age to share things with.	BUT	Other kids do have someone special their age to share things with.	☐	☐

Appendix I: Continued

Really true for me	Sort of true for me				Sort of true for me	Really true for me
☐	☐	**Some kids have a friend that they know will always care about them.**	**BUT**	**Other kids just wish they had a friend that would always care about them.**	☐	☐
☐	☐	**Some kids hardly ever feel lonely because they have a best friend.**	**BUT**	**Other kids wish they had a best friend so they wouldn't feel so lonely.**	☐	☐
☐	☐	**Some kids wish that someone their age thought they were really special**	**BUT**	**Other kids feel like someone their age already thinks they are special.**	☐	☐

Appendix J: Introduction of the Study/ Data Collection Instructions for Session 1

Good morning/good afternoon boys and girls. How are you all doing today? My name is Andrea Mott and I am a student, just like all of you. I go to school at the University of Alberta- has everyone heard of that school? I am a graduate student there. The reason why I am here today is to complete part of my homework for my graduate program. And I understand that many of you will be helping me with this homework. Did any of your parents explain to you why I would be coming to your classroom and what we would be doing together?

Well, I will explain it to you all right now. But before I do, I want to tell you that you don't have to do this if you really don't want to. Also, this is *not* a test. I'll explain it to you first, and if there is anybody who really doesn't want to do it, he/she can tell me then. As well, I know that some of you will not be doing this activity because your mum or dad did not return a signed consent form. I'm sure you all know who you are, and you may read quietly at your desk or do another task assigned by your teacher while the rest of your classmates are filling out these questionnaires.

What I am learning about in school right now is the social interactions and friendships of children: how children see their classmates behave, how they see themselves, and how they see their friends. Do you know what social interactions are? Do you know what peers are? Do you know what friends are? (Discuss) Each of us has different feelings and opinions about our peers and ourselves. We all have different friends who we like to spend time with. Some of us have lots of friends, and some of us have just a few friends. Some of us have friends inside and outside of the classroom, and others may have friends in one place or the other. We all act and behave differently too, because each one of us is special and unique. Some of us like to be around lots of people at one time, and some of us prefer smaller groups. And each one of you are good at different things-maybe some of you are better at school work than you are at sports; or maybe some of you are better at sports, and find school work harder.

What we're going to do today and next (week) is answer some questionnaires that talk about these kinds of things. You will each be providing information about yourselves and your classmates. These questionnaires will take about 2 hours in total, but we are going to divide them up over two different days so that we all don't get too tired. For today, each one of you is going to answer some questions about every other student in your class who is participating in this study. These questions are going to talk about "what your classmates are like". You will also answer a few questions about yourself and your interactions with your peers.

Now, for all of you that will be filling out these questionnaires, it is important that you remember that all of your answers are going to be confidential-does anyone know what that means? It means that no one is going to see your answers, not your classmates, not your teacher and not your parents. And when I leave here I am going to give all of you a "secret code" so that when I look at your responses and put the information into a computer, I will not be recording any of your names. Instead, your "secret codes" will be used. And once I have looked at your papers, they will be locked away where no one else can see them, and the booklets will only have your "secret codes" on them.

For these questions, there is no right/wrong answer and you are all going to have different answers, because all kids are very different from each other and special in their own way. Please try to describe your true feelings. It is important that we keep our answers a secret. Do you think that you can do this? We don't want to let any of our neighbours see our answers, or tell them what we have written on these papers. To make this even more private, I have a shield for each of you to place on your desks. You can place your booklets behind the shield (…like this…) and then the people next to you or near you will not be able to see your booklets. Does that sound good?

Now I am going to hand out this booklet. I'd like each of you too fill out the cover page, but do not open the booklet until everyone has received one and has filled out the cover page. Okay. Now everyone open to the booklet to the first page. Before we begin, with the questions, we are going to do a sample question

Appendix J: Continued

together. Look at the sample sentence. It says, "This person tells funny jokes". Beside the question are some words written in upper and lower case letters. (Draw on board and point while I am describing these) Now, say we are filling out this questionnaire for a classmate named "Joe Blow". The YES means that this sentence REALLY describes "Joe Blow", so he ALWAYS tells funny jokes. The yes means that the sentence describes "Joe Blow" pretty well, he OFTEN tells funny jokes. The sometimes means that "Joe Blow" sometimes tells funny jokes. The no, means that "Joe Blow" very rarely (hardly ever) tells funny jokes. And finally, the NO means that "Joe Blow" NEVER tells funny jokes. You are to circle the word that you think best describes your classmate (demonstrate on board). Okay, does everyone understand how to do this? Are there any questions?

Okay, now there are ____ kids in your class participating in this activity. In your booklets, there is a page for each classmate who is participating in the study. Each page will have the name of a different classmate and the same 8 questions below their name. You are going to answer each of the questions for each of the classmates named at the top of the pages. Your own name will also be in the book, but when you come to the page with your name at the top, just draw a line through the page, like this, as you do not need to answer these 8 questions about yourself.

Now, there are 8 questions to answer for each of your classmates who are participating, but the questions go quite fast, so this should not take us a very long time. Please answer all items for each classmate. Go through all items for one classmate, before moving on to the next page and a different classmate. Are there any questions? If you have any trouble with the items, I will come around and help you. Remember, you are all going to have different answers, because kids are very different from each other and it is important that we respect everyone's differences.

Once you are finished these questions about your classmates, you will find 2 more pages in your booklet. On one page there is a list of all the kids in your class participating in the study. I would like you to circle your 3 best friends on this list. But if you are a girl, it is important that you only circle your 3 best friends who are also girls. If you are a boy, you will circle only boys. Then put #1 beside your very best friend (remember – same sex).

Finally on the last page, we have some sentences here and, as you can see from the top of your sheet where it says "What I am Like", we are interested in what each of you is like, what kind of a person you are like. This is a survey, *not* a test. There are no right or wrong answers. Since kids are very different from each other, each of you will be putting down something different. First let me explain how these questions work. There is a sample question at the top, marked (a). I'll read it out loud and you follow along with me. (I read the sample question). This question talks about two kinds of kids, and we want to know which kids are most like *you*.

1) So, what I want you to decide first is whether *you* are more like the kids on the left side who would rather play outdoors, or whether *you* are more like the kids on the right side who would rather watch T.V. Don't mark anything yet, but first decide which kind of kid is *most like you*, and go to that side of the sentence.

2) Now, the second thing that I want you to think about, now that you have decided which kind of kids are most like you, is to decide whether that is only *sort of true for you,* or *really true for you.* If it's only sort of true, then put an X in the box under sort of true; if it's really true for you, then put an X in that box, under really true.

3) For each sentence you only check one box. Sometimes it will be on one side of the page, another time it will on the other side of the page, but you can only check *one* box for each sentence. You *don't* check both sides, just the *one* side most like you.

Appendix J: Continued

4) OK, that one was just for practice. Now we have some more sentences, which you are going to read silently and answer. For each one, just check one box, the one that goes with what is true for you, what you are most like.

And there are no right or wrong answers. Please try to describe your true feelings by answering all of the questions as honest as you can. And don't share your answers with anyone. When you're completely done your booklets, put up your hand, and I will come around and collect your booklet and you may read or work quietly at your desk. Okay, are there any questions? Go ahead and begin.

Appendix K : Discussion Questions Session 1

1) So what did you guys think of these questions? Did you find them easy? Hard?

2) We are not going to share our answers with anyone, but I would like to talk to all of you about these questions. These questions focus on how we see our classmates behaving in social situations, and our feelings about our classmates' behaviour. By answering these questions, it helps us to see how everyone is different and unique in their own way. Why is it important for us to see that everyone is different? How does this make each of us special?

3) Now let's think about our classmates' feelings. What this exercise is meant to do is make you think about these questions and what it may feel like to be this person. Did anyone think about what it might be like to be that "other person" when you were answering these questions? Why do you think this might be important to think about the feelings of others? (Discussion)

4) Now let's talk about some of the questions. If, by answering these questions you have thought about:

- A few classmates who are very shy
- A few classmates who are left out
- A few classmates who have trouble making friends

What are some ways that you can help these classmates? (Extended discussion)

5) Each and every one of you can help make others feel better about themselves and feel accepted by everyone. But it takes all of you to work at that-it's a team effort. Everyone needs to be an "active participant" in building a positive social environment. What do you think a positive social environment is? How can each of you make this a more positive place? Why does it need to be a team effort? (Extended discussion)

6) Before we finish, there is one more thing I want to discuss. Part of a positive social environment is being nice to and respecting our classmates and to help our classmates feel like important people in this classroom. I would like each one of you to pick a personal goal. This is not homework, and I'm not expecting you guys to write anything down, or am I going to check up on how you're doing. I would just like you to try and make an effort to be nice to others in your class. For example:

An act of kindness:
- inviting someone to play with you
- giving someone a compliment
- helping someone with their work
- having a chat with someone
- asking someone about their feelings
- sharing personal belongings with someone
- inviting someone to eat lunch with you

To an individual whom:
- you do not know very well
- you do not spend much time with
- you do not talk to very often
- you think is often left out
- you think seems lonely

Thank you very much all of you for working so hard for me. You are all wonderful helpers. We are finished for today, but I will be back (next ____) and we will do one more activity. Next week we will fill out more questionnaires, and they will be about our friendships and "ourselves". Have a good day every one, and we'll see you soon.

Appendix L: Data Collection Instructions for Session 2

Hi everyone! How are you? Thanks again for helping me with my homework -today you are going to help me with the second half of my homework! Does anyone remember what this second half is going to be about? Right, this time we are going to answer questions about our friendships, as well as some more questions about ourselves-how we feel about ourselves when we are around others.

So, for the first part of today, I'm going to give you a chance to act as the experts and to teach me about friendship. **(Below are modified/condensed verbatim instructions outlined by Jeffrey Parker, the developer of the *Friendship Quality Questionnaire*.)** We're going to talk today about what friendships are like for children your age. You'll get a chance to tell me about things like what your and your friends like to talk about and do together. Now, I could sit around my office at the University and try to guess what friendships are like. But, I might get it wrong. The best way to learn about something is usually to ask the people who know – you! I have some ideas about what friendships for children are like, but I don't know if they're right or not. That's what you're going to help me with.

Before we get started, there are important things to remember that I mentioned last day too. First, this is not a test. There are no right or wrong answers. I am just looking for your opinion and feelings, which are not right or wrong, they just are! Second, remember what we talked about last time –"confidentiality"? My responsibilities are to keep what you say in your booklets between you and me, and your responsibilities are to not look at what other people are putting down in their booklets, and to not talk about these answers afterwards. Third, you don't have to answer a question if it makes you really uncomfortable. I'd like you to try to answer all of the questions, but if you find one you really don't want to answer, or you decide not to finish answering these questions, that's okay. But you will have to sit quietly at your desk so that you don't disturb anyone else. Lastly, the "no talking rule" (Explain further).

Okay, I will now hand out the booklets and then I will explain how we will be completing them. Would anyone like to hand out the shields for me? Once you receive your booklet, fill out the front page. Do not open the booklet until I say so.

Okay, has everyone got a booklet and filled out the front page? Okay, now I'm going to do a practice question with you so that you will know how to answer these questions. The answer scale is similar to the one we used last time for answering questions about our classmates. (Write on board "I really like movies that are scary". Is there anyone in this class who likes every single scary movie? What would I put if I love all scary movies? (Consensus = "really true"). Now let's suppose I usually like scary movies, but once in awhile I don't - what would I put then for this statement? (Consensus = "pretty true"). Now, suppose I like some scary movies but there are some scary movies I don't like. I'm in the middle. What would I put? (Consensus = "somewhat true"). Now suppose I only like scary movies once in awhile – what would I put then? (Consensus = "a little true"). Finally, suppose I don't like any scary movies –I never like them. What would I put then? (Consensus = "not at all true").

Any questions? Okay, if there are no more questions, I'm starting the "no talking rule". I'm going to read each question out loud, so you don't need to worry about reading them. But I want you to follow along, stay with me, and answer the statements as we practiced, telling me how true the statement is for your friendship. Some of the statements might not be at all true about your friendship, some might be really true, some might be a little true, some might be somewhat true, and some might be pretty true. It's up to you.

To help you think about the statements, we've chosen one of your friends for you to think about. When you open your booklets, you'll find the name of one of your friends printed in every question. We want you to think about your friendship with that person and answer statements about that friendship, not another friendship. How did we get the name of one of your friends? If you remember, the last time I asked you to circle the names of our three best friends on the class list, and then put a number 1 beside our very best friend? Since most of you picked more than one name, we just picked one of those names to use today. If we accidentally didn't pick the name of your very best friend, we're sorry. But I want you to still think

Appendix L: Continued

about your friendship with the person who is on your paper. It is important that I learn about all types of friendships.

Okay, everybody turn the page and find the name of your friend. I want you to think about your friendship with that person – the friend on your page – and look at the first question. It says, "My friend and I live really close to each other" and it has the name of your friend in it. Circle the number underneath that tells me how true it is for you that you and that friend live really close to each other. Is it not at all true, a little true, somewhat true, pretty true, or really true?

Okay, now look at number 2. Number 2 says "my friend and I always sit together at lunch". Circle the number that tells me how true it is for you and your friend that you always sit together at lunch. Not at all true, a little true, somewhat true, pretty true, or really true? (At this point, read each question aloud, substituting "my friend" at point where names are in the questions. Remind them of the scale every few questions).

Okay, you guys have done great! Now we just have two more questions about this friendship before we move on to the questions about ourselves. Go ahead and turn the page. This next one is different – here we have the two questions: how is this friendship going? And how happy am I with this friendship? To answer these questions, I'd like you to circle a number on the scale beside it. On this scale, a "5" means that you are very very happy with it, or its going excellent. A "1" means that your not at all happy and it's going terrible. A "2-4" is somewhere in between. Go ahead and circle the numbers that describe your friendship that you have been thinking about and answering all of these questions about this morning (you'll see that the name of your friend is on the top of this page too!)

Finally, the last part of today's activity will be answering some questions about ourselves. Go ahead and turn the page. These questions are in a similar format to the ones we did last week. Do you remember? These questions talk about two kinds of kids, and we want to know which kids are most like *you*.

- Like last day, first decide whether *you* are more like the kids on the left side, or whether *you* are more like the kids on the right side. Don't mark anything, but go to that side of the sentence. Now that you have decided which kind of kids are most like you, decide whether that is only *sort of true for you*, or *really true for you*. If it's only sort of true, then check of the box under sort of true; if it's really true for you, then put an X in that box, under really true.

- For each sentence you only check one box. Sometimes it will be on one side of the page, another time it will on the other side of the page, but you can only check *one* box for each sentence. You *don't* check both sides, just the *one* side most like you.

Are there any questions? Okay, go ahead and complete these last few pages of your booklet. Remember, let's keep out answers to ourselves. Please answer all of the questions as honest as you can, and then close your booklets when you are finished and I will come around and collect your booklets and you may work quietly at your desk. Remember, try to be as true as you can about what kind of person you are. And don't show your answers to anyone. Okay, go ahead.

Appendix M : Discussion Questions for Session 2

1) So what did you guys think of these questions? Did you find them easy? Hard?

2) Again, we are not going to share our answers with anyone, but I would like to talk to all of you about these questions. What we have done today is reflected on a specific friendship we have with a classmate, what that friendship is like, and how we feel about it. What did these questions make you think about? (Discussion)

3) We also answered questions about our own feelings about our relationships with our peers and friends. Remember last week, we also answered a few questions about our feelings about our social interactions. These have all been exercises in self-awareness. Does anyone know what self-awareness is? Why do you think it is important to be self-aware/aware of our feelings? By answering these questions, we are thinking about our feelings, and if we are aware of our feelings, we are able to share those feelings with others. (Extended discussion)

4) How do you think our feelings are connected to our behaviours? What does this exercise tell us about others' feelings and behaviours? (Extended discussion) If you can see these connections for yourself, then it becomes easier to see these connections for others too.

5) This self-awareness is connected to other-awareness, and by being aware of our own feelings and of others feelings, we can help to make this a more positive social environment. (Extended discussion)

Great job everyone! Thank you everyone for being so helpful. I really appreciate all the work that you have done for me. By helping me today and previously, I will be able to finish my schooling very soon. Now, just to show you how much I really appreciated your help, and how important these questions have been, I have a certificate for each and every one of you. It says…… (Hand them out). So, thank you all very much. I've taken up enough of your class time, so I will leave you to Mr/Mrs. ____now. Have a good day all of you and good luck with the rest of the year.